School Board Journal

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In This Issue:

★ Is Your School Ready for the A-Bomb?—*Wilson*

★ What Can School Board Members Do to Answer Criticisms of Public Education?—*Melbo*

★ Popular Summer Day Camp in Normandy—*Vonckx*

★ Military Deferment of College Students—*Fitzpatrick*

VOLUME 122, NUMBER 5 MAY, 1951

For Classrooms...

This 32′x60′x10′ Butler rigid frame building provides increased classroom facilities for Georgia Institute of Technology, Atlanta, Ga.

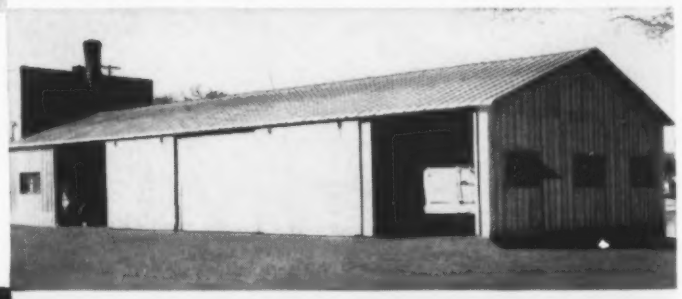
The clean, trim exterior presents an attractive modern appearance, and the windows are arranged to provide ample lighting and ventilation.

For Gymnasiums...

(Left) Gymnasium and auditorium facilities are combined in Butler Building used by Suring, Wis., school. Combination bowstring truss and rigid frame construction assures maximum usable space.

For Auxiliary Buildings...

(Right) At Monticello, Iowa, this Butler Building is used as school bus garage and repair shop. The straight sidewalls and clearspan construction provide plenty of room for maneuvering vehicles.



Buy BUTLER Steel Buildings...

Hundreds of schools, colleges, universities across the nation use Butler Buildings for practically every purpose . . . and save up to 50% over costs of conventional construction. Butler Buildings are fire-safe, weathertight, permanent . . . ready to occupy in days instead of weeks. For complete sales and erection service on Butler Buildings to fit your school's needs and your board's budget, see your Butler distributor, or write today to

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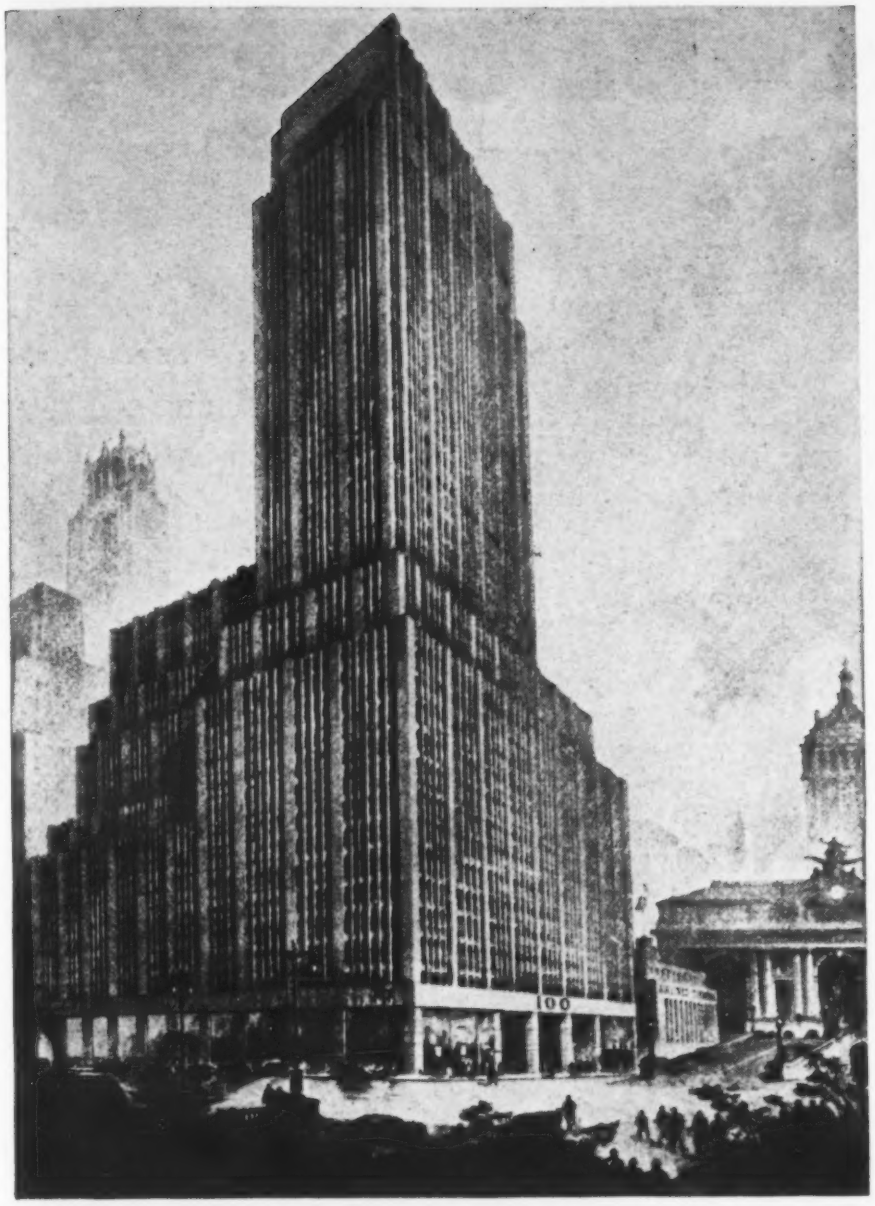


KAHN & JACOBS • *architects*
JAROS, BAUM & BOLLES • *engineers*
GEORGE A. FULLER CO. • *general contractor*
JARCHO BROTHERS • *plumbing contractor*
NEW YORK PLUMBERS' SPECIALTIES CO., INC. *plumbing wholesaler*

THIS FINE BUSINESS HOME IS "JUST A FEW STEPS TO EVERYWHERE"

100 PARK AVENUE!

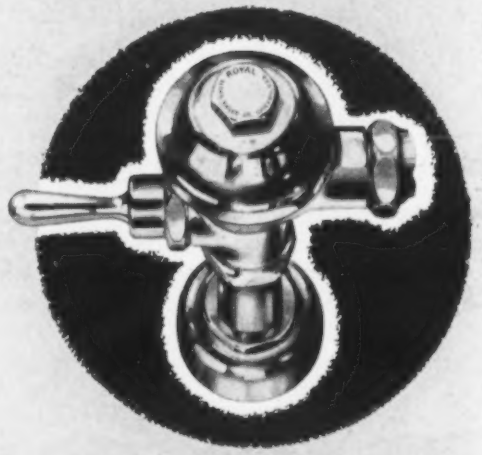
ONCE THE RENDEZVOUS OF GAIETY AND WIT

Oldtimers who now enter 100 Park Avenue may recall names and events which brought much fame to New York's grand old Murray Hill Hotel, but memories of those fabulous times are quickly forgotten in the presence of integrated architectural beauty and modern business home efficiency.

As this New York address is famous, so are many product names found throughout the new 36-story building. Prominent among them is SLOAN FLUSH VALVE—a name placed there by its long-standing reputation for *complete* satisfaction. This reputation gave Sloan the unapproached leadership which has been maintained throughout the years, and which explains why . . .

more ***SLOAN Flush VALVES*** *are sold than all other makes combined*

SLOAN Royal FLUSH VALVE



SLOAN VALVE COMPANY · CHICAGO · ILLINOIS

THE ROYAL is suitable for installation in every type of building. It needs no adjustment and will deliver a uniform flush at all pressures between 10 and 100 pounds.

BE SURE—BE SAFE GET GOODYEARS!

BEFORE you buy school bus tires, you want to be sure you are getting the best. *Sure* of their safety features—*sure* of their dependability—and above all, *sure* they'll give you trouble-free mileage for a long, long time to come. How can you be sure? All you have to do is remember that now, as for a long time past, Goodyear tires are First Choice of experienced operators.

More people ride on Goodyear Tires than on any other kind

NEW HI-MILER RIB TREAD

Provides premium performance at regular prices! New flatter zigzag tread means more road grip on traction wheels—gives extra-long, smooth-rolling service on front wheels.

NEW HI-MILER XTRA TRED

As much as 50% deeper tread gives super-mileage plus super-traction. We believe Xtra Treds will outwear any other heavy tread tire made. They cost only 12½% more—give up to 50% more mileage!

DOUBLE-DUTY ROAD LUG

This remarkable dual purpose bus tire is of tough construction and features a special tread design that provides exceptional traction on unpaved roads, as well as long, smooth mileage on the highway.

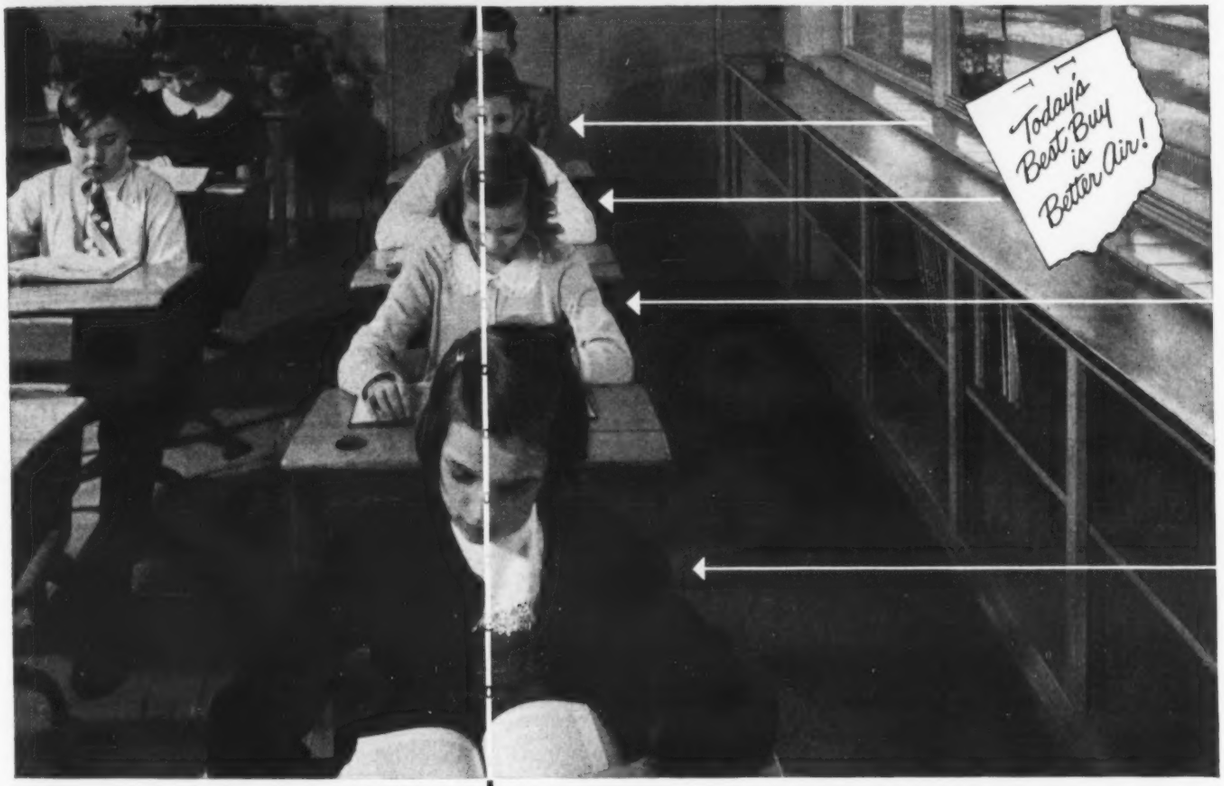
GOODYEAR

We think you'll like "THE GREATEST STORY EVER TOLD"—Every Sunday—ABC Network

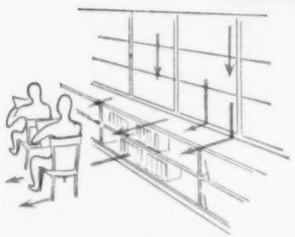
Hi-Miler, Xtra Tred, Road Lug—T.M.'s The Goodyear Tire & Rubber Company, Akron, Ohio

THE AMERICAN SCHOOL BOARD JOURNAL, May, 1951, Vol. 122, No. 5. Published monthly by The Bruce Publishing Co., 400 N. Broadway, Milwaukee 1, Wis. Entered as Second-Class Matter March 17, 1891, at the Post Office at Milwaukee 1, Wis., under Act of March 3, 1879. Subscription Price — In the United States, Canada, and countries of the Pan-American Union, $3.00 per year. In Foreign Countries, $3.50. Single copies, 35 cents.

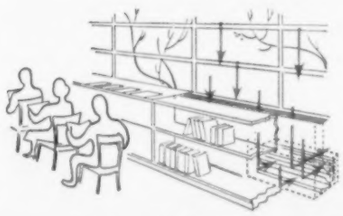
CONDEMNED TO *DRAFT ROW?*



let DRAFT | STOP free them!



USED TO BE *drafts and chill air were part of ventilation. Above you see the usual air flow as it sweeps dangerously over pupils.*



NOW YOU SEE *how* DRAFT | STOP *prevents drafts and cold rushes of air before they start. No school can be called "modern" unless the* DRAFT | STOP *System is in service.*

IN TOO MANY schoolrooms, the desk row by the windows is dangerous. Draft Row condemns pupils to discomfort, inattention, often illness. This problem, created by today's large window area, has been solved. The new Herman Nelson DRAFT | STOP System stops drafts!

Automatically controlled temperatures and a fundamental improvement in modern heating and ventilating make DRAFT | STOP the system that is definitely different, absolutely unmatched in performance. Send now for booklet explaining DRAFT | STOP in detail. Write Dept. AJ-5.

AAF herman nelson moline illinois

HERMAN NELSON

Division of **AMERICAN AIR FILTER COMPANY, INC.**
PLANTS IN MOLINE, ILLINOIS AND LOUISVILLE, KENTUCKY

Oneida LEADS THE W

Built to provide the utmost in safety and comfort—long life and lower operating costs—Oneida Safety School Bus Bodies offer educators a new, *road-tested* dollar value based on performance records throughout the country.

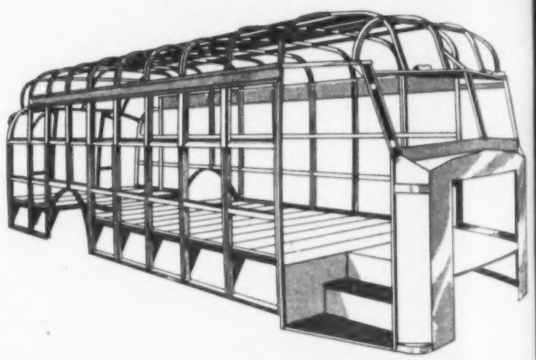
Available in a range of capacities up to 72 passengers, Oneida Bodies are engineered to fit the leading bus chassis makes with accuracy, balance and streamlined design.

Exclusive features of design and construction, pioneered by Oneida, create an overall quality that assures maximum protection to children and top security for the taxpayers' vital investment in school transportation.

THE ONEIDA "UTILITY" BUS BODY FOR SMALL STUDENT LOADS

Oneida Utility School Bus Bodies are ideal for conditions where other coaches are too large for economical operation. Roomy yet compact, 16 to 24 passengers can be easily accommodated, depending on the seating basis.

Fine craftsmanship has been the hallmark of Oneida for more than a century. Oneida Safety School Bus Bodies—tough, strong, rugged—are geared to the nation's needs



A CRADLE OF STEEL FROM WHEEL TO WHEEL

The exclusive Oneida integrated frame construction provides "A Cradle of Steel from Wheel to Wheel." The interlocking heavy-gauge steel structural members and double-riveted body panels create a self-supporting body of great strength.

PRO BONO PUBLICO
Oneida
ALL STEEL BUS BODIES FOR
SAFETY
COMFORT
ECONOMY

BE SAFE...

SCHOOL BUS SALES DIVISION
ONEIDA PRODUCTS CORPORATION
CANASTOTA • NEW YORK

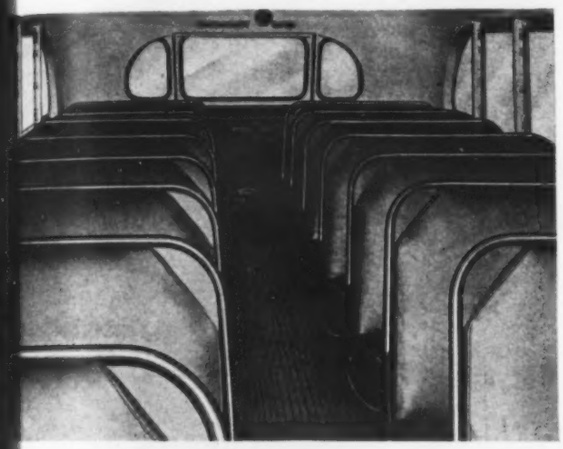
WAY IN SCHOOL BUS SAFETY!

masterpiece of precision engineering—the All-Steel Oneida Body has Flexi-Joint construction with 4 point suspension for mounting. This exclusive Oneida feature of design provides a "go with the blow"—compensating factor in joint and assembly construction that overcomes road shock, stresses, strains and torsional twists.

universal, streamlined cowl—lustrous, durable finish—heavy insulation—sturdy, interlocked roof, platform and body panel assembly—combine to make Oneida a body of unusual beauty and dependability.

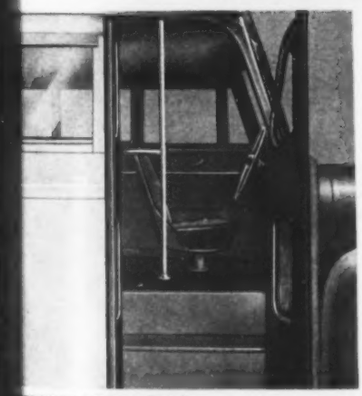
In the event of unforeseen damage, Oneida's unique construction features and interchangeable parts allow quick, easy repairs with a minimum of "out-of-service" time.

The extra-rugged Oneida Body is built to stand up under the hard daily grind over paved or rough roads. With every feature a safety feature Oneida challenges the consideration of school boards everywhere.



ROOMY, COMFORTABLE INTERIOR

Seat arrangements and window openings meet individual state requirements. Wide aisles and full 70" headroom allow rapid, unimpeded loading and unloading. All seats have web-type handholds to prevent accidents. Heavy, non-skid, ribbed aisle linoleum is an added safety factor. Continuous circulation of fresh air is maintained through roof ventilators. Air flow may be regulated by manually-operated grilles located in ceiling.



TRANCE DOOR • Wide, two-step entrance rmits easy loading and unloading of dents. Vertical edges of doors have soft bber seals to protect children's fingers. metal courtesy guard is between entrance ll and right front seat.

DRIVER'S SEAT • It is adjustable up and down, backward and forward, to allow the individual driver easy reach of all controls. The *deluxe* swivel seat, which provides easy entrance and exit, is designed to combine safety with comfort.

LEFT REAR EMERGENCY DOOR (optional equipment) • This type emergency exit door is located in the left rear quarter of the body and permits a rear seat across the full width of the body. This door is equipped with a three-point safety releasing mechanism.

BUY ONEIDA

America's Finest School Bus Body

TRADE MARK

Oneida

SAFETY-SCHOOL-BUS-BODY

CLIP AND MAIL TODAY

SCHOOL BUS SALES DIVISION
Oneida Products Corporation, Canastota, N. Y.

Gentlemen:

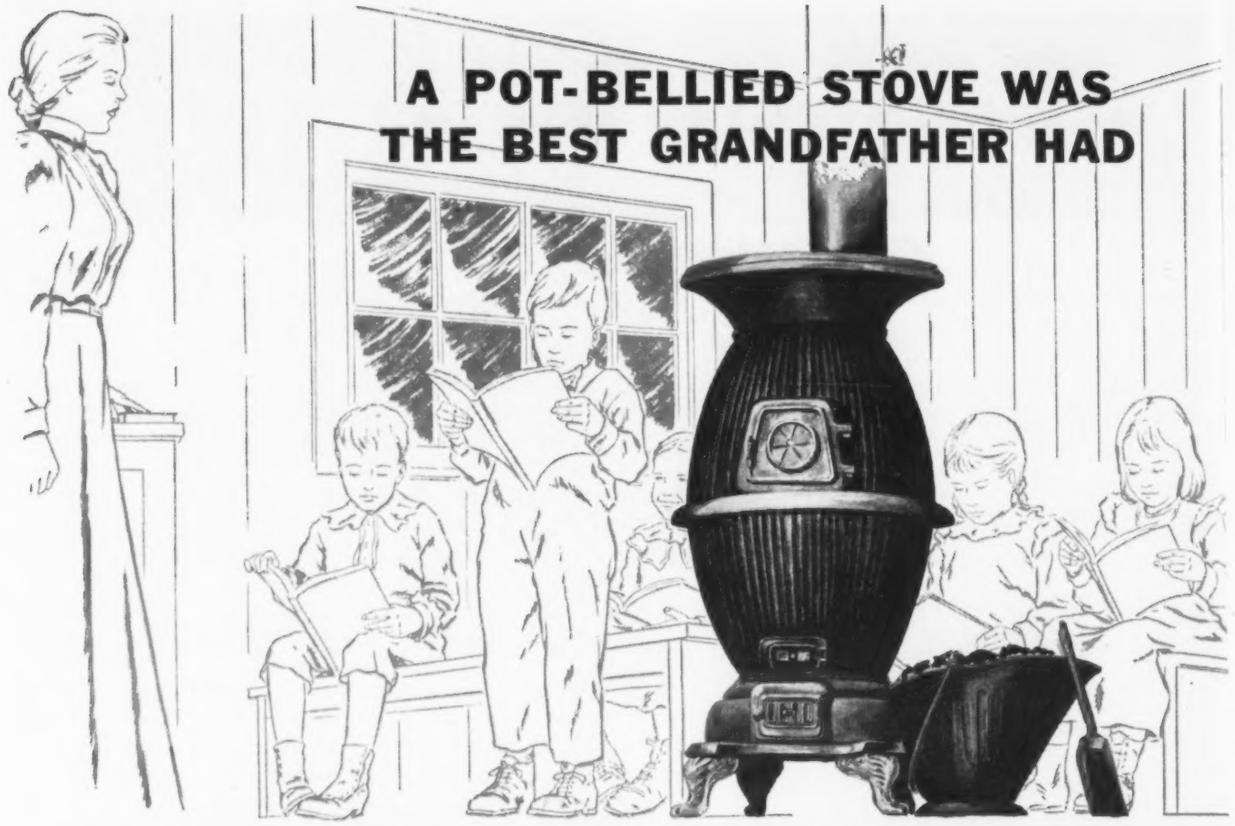
Please send me complete information and specifications on Oneida Safety School Bus Bodies.

Name_____

Address_____

City_____ Zone____ State_____

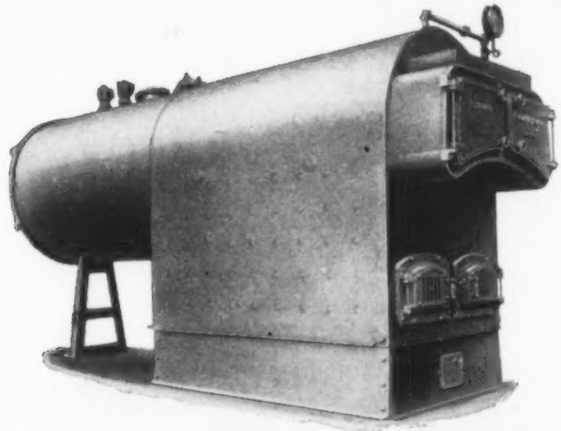
School District_____



A POT-BELLIED STOVE WAS THE BEST GRANDFATHER HAD

. . . but modern schools demand the higher comfort standards of

KEWANEE
STEEL BOILERS



5000 Series KEWANEE for low pressure

For any fuel. Sizes to produce from 840,000 to 10,200,000 Btu hourly, or 3500 to 42,500 sq. ft. steam . . . a popular Kewanee Series for Schools.

What a change from Grandfather's day, even from our father's day! For today's higher standards of heating comfort and greatly enlarged glass areas for better light put it squarely up to the boiler to produce an ever increasing flow of dependable heat . . . and do it economically.

The rugged steel dependability of Kewanee Boilers . . . their well known capacity to carry large overloads plus a long recognized reputation for economy of fuel . . . makes them first choice for heating our finest schools and other big buildings.

Kewanee has kept pace with the need for more rugged, more efficient boilers . . . and so the preference for Kewanee becomes more pronounced year after year.

KEWANEE BOILER CORPORATION
KEWANEE, ILLINOIS
Eastern District Office: 40 West 40th Street, New York City 18
Division of American Radiator & Standard Sanitary Corporation

BUILDING BETTER BOILERS OVER 80 YEARS

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THE PREFERRED SCHOOL PLUMBING

at **Barrington Consolidated High School,** Barrington, Illinois

PERKINS & WILL, Chicago
ARCHITECT AND ENGINEER

COATH & GOSS, Chicago
GENERAL CONTRACTOR

STEWART & NEILSON, INC., Cary, Illinois
PLUMBING AND HEATING CONTRACTOR

Crane *Norwich* lavatories are recognized for their quality features—for example: finest vitreous china, spacious rectangular basin, *Victor Magiclose* self-closing faucets with working parts combined in a replaceable cartridge. Crane *Sanitor* Urinals with slope front and matching seam covers contribute to the neatness and sanitation of the washroom. Available in acid-resisting vitreous china or Crane *Duraclay.*

For *everything* in school plumbing, see your Crane Branch, Crane Wholesaler, or Local Plumbing Contractor

CRANE

CRANE CO., GENERAL OFFICES:
836 S. MICHIGAN AVE., CHICAGO 5

VALVES • FITTINGS • PIPE • PLUMBING AND HEATING

Classroom . . . Gymnasium . . . Hallway . . . Kindergarten . . . Auditorium

Trane Heating and Ventilating Serves Everywhere in the School

More and more schools everywhere are finding the answers to their heating and ventilating problems in the broad Trane line.

In Classrooms – A school designer in the Middle West wanted to use large glass areas in a new building. But big windows can create drafty rooms. Drafts were eliminated by Trane Unit Ventilators that conveniently blanket the windows while they provide warm, clean outside air to the classroom.

In Gymnasiums – In a high school in Evanston, Illinois, they had a high ceiling gymnasium heating problem. Trane Projection Heaters hugging the ceiling drive heat down to floor line to keep thin clad players warm without interfering with flying basketballs.

In Hallways – Extra heat was needed for a stair landing in a new school at Fort Wayne, Indiana, yet there couldn't be any dangerous hot or sharp surfaces to harm youngsters hurrying to and from classes. A Trane Convector, the original heat-from-the-wall unit, was recessed below the window, completely out of the way, and except for its warmth the children will never know it's there.

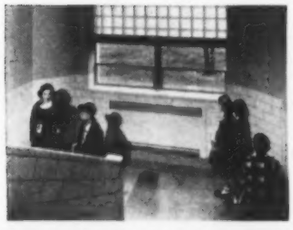
In Kindergartens – Like any other grade school, the new building at Glenview, Illinois, had to provide correct heating for the kindergarten kiddies who spend so much time on the floor. Trane Convectors, thanks to their unique method of heating, make floorline temperatures as comfortable as those six feet up – and without drafts of any kind.

In Auditoriums – At New London, Texas, they wanted the safest possible heating and ventilating system in the school that replaced its explosion wrecked predecessor. Trane Unit Ventilators neatly tucked away under windows supply clean, tempered air to every room, even the auditorium.

Whether it's classroom, gymnasium, hallway, kindergarten or auditorium, Trane heating and ventilating serves everywhere in the school.

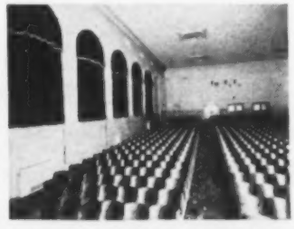
Whatever your heating, ventilating, cooling or air conditioning problem is, look for the answer in the complete Trane line.

Merle J. Abbett School, Ft. Wayne, Ind. Architect—F. W. Pahlemeyer, Ft. Wayne. Engineer—J. M. Rotz Engineering Co., Indianapolis
Evanston Township High School, Evanston, Ill. Architects and Engineers—Perkins & Will, Chicago. Mechanical Engineer—E. R. Gritschke, Chicago
Clyde L. Lyon School, Glenview, Ill. Architects and Engineers—Perkins & Will, Chicago. Mechanical Engineer—E. R. Gritschke, Chicago
New London School, New London, Texas. Architect—Preston M. Geren, Ft. Worth. Engineer—Richard K. Werner, Ft. Worth



Completely recessed into the wall, the Trane Convector gives these youngsters every available inch of floor space – and plenty of warmth.

Warm floors and light without drafts. Those Trane Convectors under the window make both possible in this modern kindergarten.



A lot of ventilation – quickly – will be the order when this hall fills up. The Trane Unit Ventilators will meet that order.

TRANE

MANUFACTURING ENGINEERS OF HEATING, VENTILATING AND AIR CONDITIONING EQUIPMENT

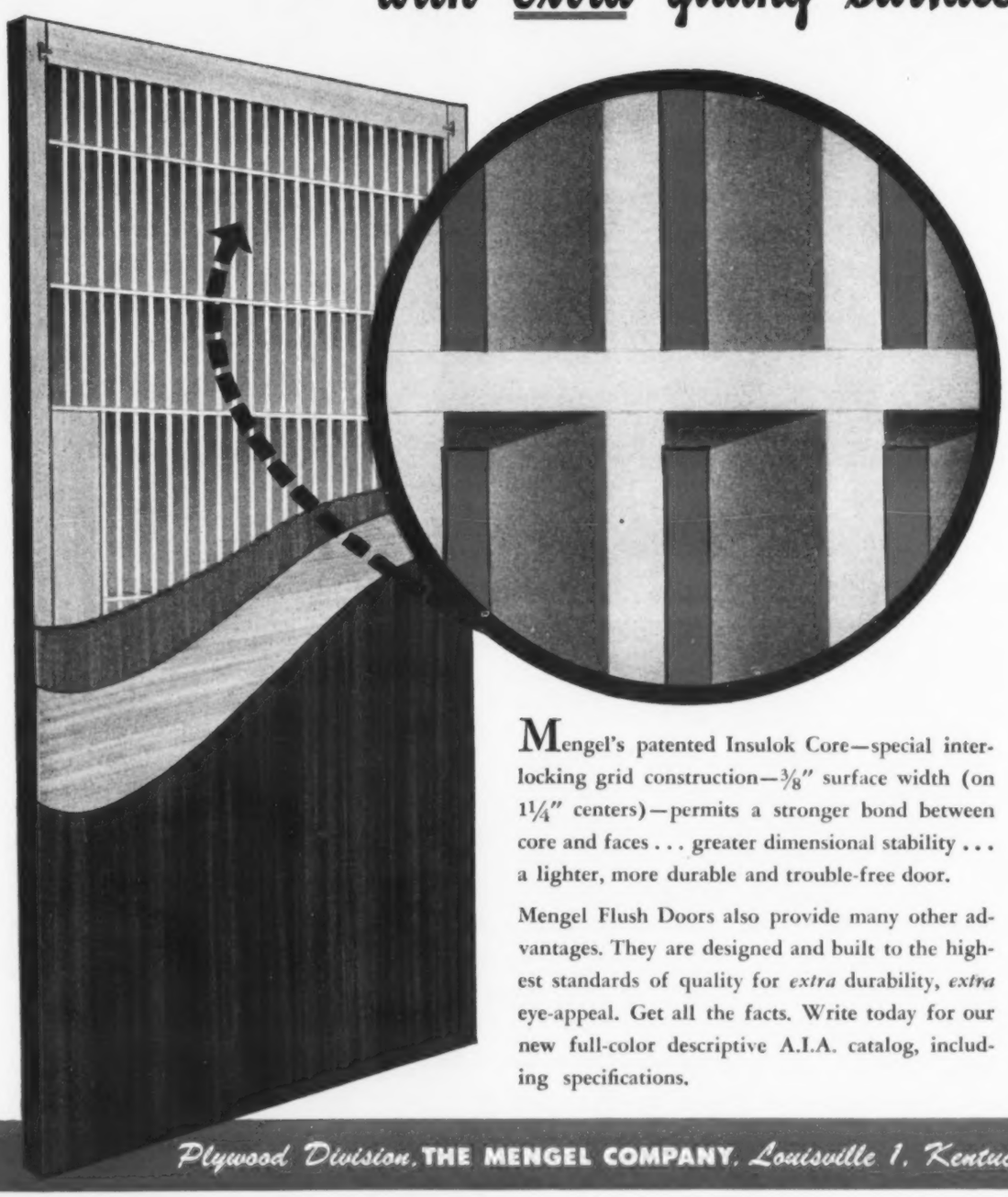
THE TRANE COMPANY, LA CROSSE, WIS.
Eastern Mfg. Division . . . Scranton, Pa
Trane Company of Canada, Ltd., Toronto

OFFICES IN 80 U. S. AND 10 CANADIAN CITIES

MENGEL

HOLLOW-CORE *Flush* DOORS

have patented INSULOK CORES with extra gluing surface



Mengel's patented Insulok Core—special interlocking grid construction—3/8" surface width (on 1¼" centers)—permits a stronger bond between core and faces . . . greater dimensional stability . . . a lighter, more durable and trouble-free door.

Mengel Flush Doors also provide many other advantages. They are designed and built to the highest standards of quality for *extra* durability, *extra* eye-appeal. Get all the facts. Write today for our new full-color descriptive A.I.A. catalog, including specifications.

Plywood Division, **THE MENGEL COMPANY,** *Louisville 1, Kentucky*

AMERICAN-Standard

First in heating . . . first in plumbing

It's AMERICAN-Standard Plumbing Fixtures in Sewickley Academy's new wing, too

● Through years of hard service in the Sewickley Academy of Sewickley, Pa., American-Standard plumbing fixtures have proved to be durable, easy and economical to maintain. It was only natural, therefore, that American-Standard plumbing fixtures were again selected when a new wing recently was added to the school.

You, too, will be assured years of trouble-free service if you install performance-proved American-Standard products when you build, add to, or modernize *your* school. And there's a *complete line* of both heating equipment and plumbing fixtures to choose from.

LOOK FOR THIS MARK OF MERIT

Sparkling, clean-looking fixtures like these Lucerne Lavatories in the Sewickley Academy encourage children to practice personal hygiene. Made of genuine vitreous china, the lavatories are easily cleaned, will retain their luster indefinitely. Fittings are non-tarnishing Chromard.

Another handsome fixture in Sewickley Academy is this Neo-Toric Drinking Fountain. Fitted with anti-squirt bubbler, it features an angle stream, a sanitary safeguard since the water always falls clear of the fountain head. The Neo-Toric fountain is made of gleaming, hard-to-mar genuine vitreous china.

This kindergarten washroom is equipped with plumbing fixtures especially designed for small children. The siphon jet Devoro Baby Water Closet is only 10" high. The Lucerne Lavatory is wall-hung to facilitate floor cleaning. Both fixtures are made of durable, easy-to-clean, genuine vitreous china.

Designed for easy access by students of all sizes, these Chinal Urinals assure utmost sanitation. They're made of genuine vitreous china . . . will not stain or crack, will not absorb odors. Flushing action is fast and efficient.

American Radiator & Standard Sanitary Corp., P. O. Box 1226, Pittsburgh 30, Pa.

Serving home and industry

AMERICAN-STANDARD · AMERICAN BLOWER · CHURCH SEATS · DETROIT LUBRICATOR · KEWANEE BOILERS · ROSS HEATER · TONAWANDA IRON

THE MODERN SCHOOL SYSTEM CHOOSES FIBERGLAS* COATED FABRICS FOR CURTAINS AND DRAPERIES THAT ARE PERMANENTLY FIRE-SAFE!

Auditorium curtain and valence in this large city school auditorium is made of attractive, long-lasting Coated Fiberglas fabric.

Here's why school boards across the country are choosing curtains and draperies made with resin-coated fabrics woven of Fiberglas yarns:

Coated Fiberglas fabrics are *permanently* fire resistant . . . they are soil resistant and clean easily . . . absolutely will not stretch, shrink, or sag . . . are mildew- and rot-proof . . . completely color-fast . . . and are competitive in price with conventional fabrics.

Increasing military demands for Fiberglas Yarns are limiting the ability of coated fabric makers to supply all demands for this material. However, it will pay you to investigate its future availability and use.

MAIL COUPON TODAY FOR COMPLETE DETAILS

Owens-Corning Fiberglas Corporation, Industrial Textile Sales Division
16 East 56th Street, New York 22, N. Y.

Please give me details on Fiberglas coated fabrics and the names and addresses of suppliers.

NAME.....

SCHOOL SYSTEM.....

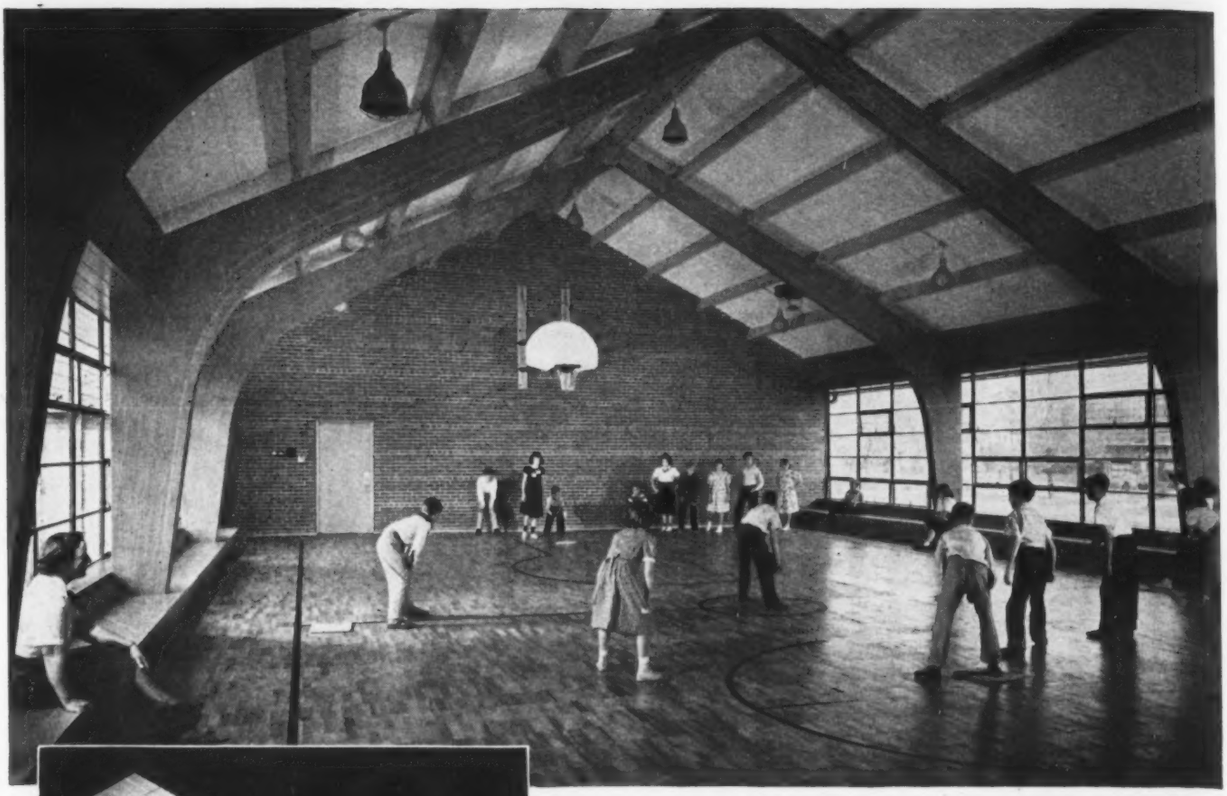
STREET.....

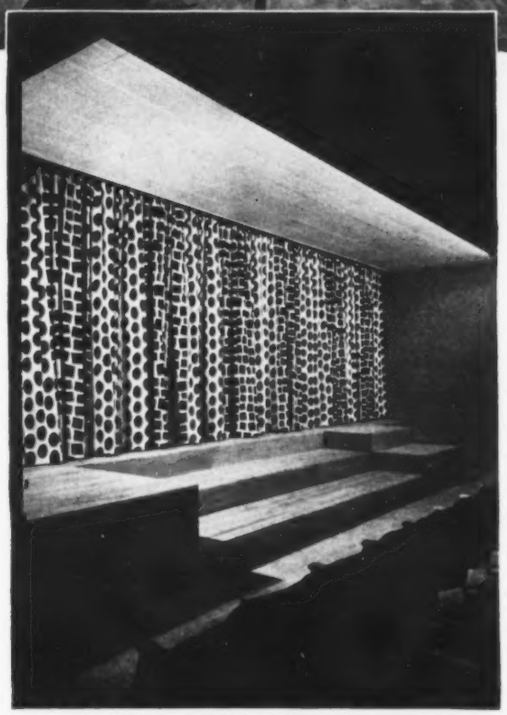
CITY.....ZONE....STATE.....

OWENS-CORNING FIBERGLAS *Yarns*

*Fiberglas is the trade-mark (Reg. U. S. Pat. Off.) of Owens-Corning Fiberglas Corporation for a variety of products made of or with fibrous glass.

FIBERGLAS IS IN YOUR LIFE...FOR GOOD!





Playroom-Gymnasium in new Blythe Park School, Riverside, Ill., floored with block-patterned Northern Hard Maple. Perkins & Will, Chicago, Architects-Engineers.

Stage detail of the dual-use auditorium showing flexible-unit platforms, maple-surfaced, adaptable to any needs of choral activity or pageantry. The colorful red-and-black curtain was specially designed by Angelo Testa.

Nature *anticipated* the modern school with—

NORTHERN HARD MAPLE

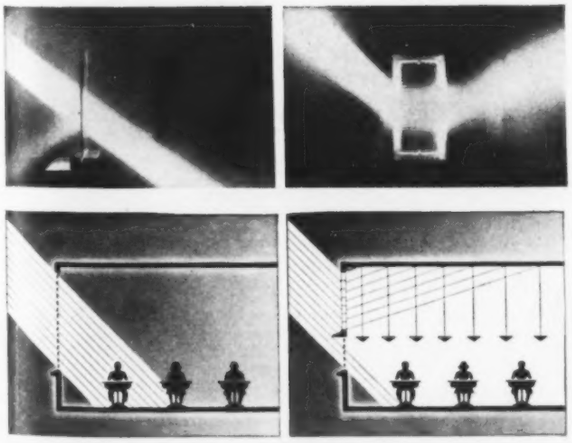
● Cheerful brightness, restful *resiliency*, lasting economy, commend the floor of Northern Hard Maple to the school planner. When these modern concepts of truly functional school design arrived, **MFMA**-graded Northern Hard Maple flooring was here to meet them squarely, on every count. Maple's satin-smoothness comes from its dense, scar-resistant, non-splintering grain structure. Its accurate **MFMA** dimensioning and its own inherent stability make for good, tight, joints—hence, cleanliness and easy maintenance. Truly, Nature *anticipated* the advent of the modern school with "the finest floor that grows." Ask your architect about important savings through use of the interesting "character" grades of **MFMA** maple. See *SWEET'S* Arch. 13i/MA.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Suite 588, Pure Oil Bldg., 35 East Wacker Drive
CHICAGO 1, ILLINOIS

FLOOR WITH *NORTHERN* HARD MAPLE
BEECH AND BIRCH

Insulux daylighted classroom in the James Vernor Elementary School, Detroit, Michigan. Architects: Eberle M. Smith Associates, Detroit; Contractors: Emil Van Sile Company, Detroit. This school was one of the original three Detroit Insulux Fenestration "test" schools.

Daylight Engineering CAN GIVE YOUR CHILDREN THE SAME GOOD DAYLIGHT THAT DETROIT'S CHILDREN HAVE



Above, child near ordinary window gets harsh brightness and glare, others suffer from high degree of contrast, need overhead light. Right, light beams striking Insulux Glass Block No. 363. See how built-in prisms route light UP, and spread it. Result is even, diffused light over all parts of classroom.

A few years ago, the Detroit Board of Education became gravely concerned with lighting conditions in Detroit schools.

After long investigation, it incorporated Insulux Fenestration Systems in a group of three test schools. Results were so excellent that glass block is being specified in practically all of Detroit's new school buildings.

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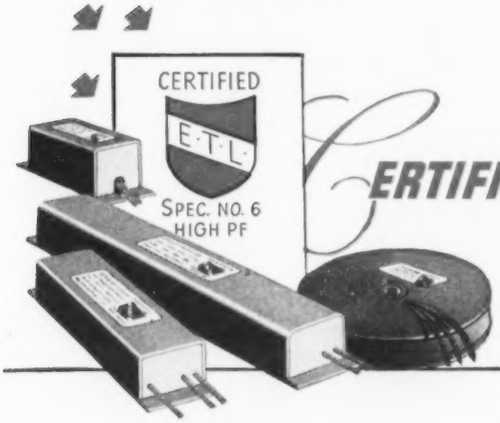

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THE AMERICAN
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A Periodical of School Administration

MAY 1951

How Well Do We Pay the School Superintendent?

*M. E. Stapley**

Nowhere in our American culture is there an office parallel in importance or influence with that of the superintendent of schools. He is locally the chief leader of the teachers; he is the top executive in a large enterprise of social and economic importance; he is a leading force for influencing the general interests of a community and for co-ordinating the agencies which meet many of its social and cultural needs; he is finally an integral and influential factor in the continued development of the most distinctly American profession — teaching.

The task of the superintendent is never ending. Frequently, he is the center of community conflicts and is subject to tensions that make his position almost untenable. At best, he is compelled continuously to realize the inadequacy of one individual to know what to do, and how to do all of the endless things that he ought to do.

To the superintendents of schools, the vast majority of whom deserve their positions through ability and devotion to duty, America owes more than it can repay. The work they do for educational leadership cannot be measured in dollars and cents.

There is no defensible reason for our failure to remunerate our superintendents in dollars to some degree commensurate with their services. Compared with the total expenditure of any school system, what we pay our administrators is indeed small. Our purpose should be to reward them for their efforts, and by good working conditions and pay, to attract the most able men available into the office.

The analysis of salaries of Indiana superintendents, which follows, is an effort to analyze conditions and needs in one state. A similar study in any other state will probably bring out similar problems and needs.

The Situation Studied

In Indiana there are 160 cities and town school systems employing superintendents. From 93 of these, or 58 per cent, complete data were gathered. A number of schools which reported after it was considered wise to go forward with the analysis were omitted because they did not seem to affect the result. Information was gathered from presidents of boards of school trustees and from superintendents, or taken from official records.

As a basis of judgment, the analysis treats superintendents' salaries as compared with those paid to teachers. Median teacher salaries were determined for each school system, and these medians were averaged for all school systems reporting for all the given city classification. The average salary of superintendents within a given city classification was obtained. Salary data were secured for the 1940–41, 1946–47, and 1950–51 school years.

In the course of the investigation, it was necessary to use cost-of-living indexes. Since the index for the calendar year 1940 (based upon the 1935–39 average) was 100.2 and for the calendar year 1941, 105.2, the index used for the school year 1940–41 was 102.7. Similarly, the 1946 index was 139.3, the 1947 index 159.2, and the index used for the 1946–47 school year was 149.2. Since the beginning, the close, and the length of the school terms do not coincide in all cities, this method seemed to be as reasonable as any other. The index for the last four months of 1950 was used for the 1950–51 school year, in spite of the fact that the index for the entire school year certainly will be higher.

The distribution of salaries received in 1940–41, 1946–47, and 1950–51 is shown in Table I. The table can be read as follows: The median salary of teachers in cities of less than 2500 population was $1,160 in 1940–41, $1,976 in 1946–47, and $2,956 in 1950–51. The superintendents in the same cities averaged $2,317 in 1940–41, $3,480 in 1946–47, and $5,236 in 1950–51. The average salary for superintendents in all cities reporting was $3,405 in 1940–41, $4,513 in 1946–47, and $6,561 in 1950–51.

TABLE I. Distribution of Median Salaries for Classroom Teachers and Average Salaries for Superintendents

Size of Cities	*Classroom Teachers*			*Superintendents*		
	1940–41	*1946–47*	*1950–51*	*1940–41*	*1946–47*	*1950–51*
2500–	$1,160	$1,976	$2,956	$2,317	$3,480	$5,236
2500–5000	1,265	2,084	3,248	2,959	4,082	5,919
5000–10,000	1,331	2,136	3,350	3,494	4,465	6,520
10,000–30,000	1,550	2,155	3,217	4,338	5,366	7,576
30,000–100,000	1,806	2,696	4,213	6,333	7,633	10,833
100,000 +	2,026	3,058	4,290	8,167	9,833	13,929
93 cities	$1,342	$2,124	$3,225	$3,405	$4,513	$6,561

Table II converts the salaries paid to teachers and superintendents in the school years shown into levels of purchasing power for the years 1935–39. In cities of less than 2500 in population, the actual salaries of teachers shown in Table I were worth $1,130, $1,324, and $1,682 respectively, as measured by 1935–39 dollars. Superintendents' salaries were worth $2,256, $2,332, and $2,980 in the same cities for 1940–41, 1946–47, and 1950–51. For

*Executive Secretary, Indiana School Boards Association and Professor of Education at Indiana University, Bloomington, Ind.

all cities the value of the median teacher's salary increased from $1,307 to $1,424 by 1946–47 and to $1,836 by 1950–51.

Meanwhile, the average superintendent's salary decreased in purchasing power from $3,315 to $3,025 by 1946–47 and increased to $3,734 by 1950–51.

TABLE II. Median Salaries of Classroom Teachers and Average Salaries of Superintendents Expressed in Terms of the Value of the 1935–39 Dollar

Size of Cities	*Classroom Teachers*			*Superintendents*		
	1940–41	*1946–47*	*1950–51*	*1940–41*	*1946–47*	*1950–51*
2500–	$1,130	$1,324	$1,682	$2,256	$2,332	$2,980
2500–5000	1,232	1,397	1,849	2,881	2,736	3,369
5000–10,000	1,296	1,432	1,907	3,402	2,993	3,711
10,000–30,000	1,509	1,444	1,831	4,224	3,597	4,312
30,000–100,000	1,759	1,807	2,398	6,167	5,116	6,165
100,000+	1,973	2,050	2,442	7,952	6,590	7,928
93 cities	$1,307	$1,424	$1,836	$3,315	$3,025	$3,734

Using the purchasing power of 1940–41 salaries as a base, we can now determine the percentage of increase or decrease in the purchasing power of salaries in 1946–47 and in 1950–51. These computations are shown in Table III. Here we see that in cities of less than 2500 in population, teachers' salaries were worth 17.2 per cent more in 1946–47 than in 1940–41 and 48.9 per cent more in 1950–51 than in 1940–41. The superintendents' salaries in the same cities were worth 3.4 per cent more in 1946–47 and 32.1 per cent more in 1950–51. On the other hand in cities of over 100,000 in population, teachers' salaries were worth 23.8 per cent more in 1950–51 than in 1940–41, whereas superintendents' salaries were worth .3 per cent less.

A satisfactory analysis of what has happened cannot stop at this point. State and federal income taxes can be ascertained and deducted from contract salaries; these data can be converted into levels of purchasing power, and the percentage of increase or decrease in the "take-home" purchasing power of salaries can thus be determined. To do so for all teachers and superintendents, regardless of their marital status and number of dependents, would require unjustifiable labor and space. The arbitrary selection of the single teacher without dependents and of the superintendent with two dependents illustrates what has happened for two rather typical groups. Table IV presents actual salaries, minus state and federal income taxes, converted into purchasing power as measured by the 1935–39 dollar.

TABLE III. Percentage of Increase or Decrease in Median Salaries of Teachers and Average Salaries of Superintendents Computed in Terms of the Purchasing Power of the 1935–39 Dollar

Size of Cities	*Classroom Teachers*		*Superintendents*	
	1946–47	*1950–51*	*1946–47*	*1950–51*
2500–	+17.2	+48.9	+ 3.4	+32.1
2500–5000	+13.4	+50.1	— 5.0	+16.9
5000–10,000	+10.5	+47.1	—12.0	+ 9.1
10,000–30,000	— 4.4	+21.3	—14.8	+ 2.1
30,000–100,000	+ 2.7	+36.3	—17.0	*
100,000+	+ 3.9	+23.8	—17.1	— .3
93 cities	+ 9.0	+40.5	— 8.7	+12.6

M. L. Marquette

President of the Louisiana State School Boards Association and also president of the Parish School Board at Franklin, La.

The magnificent achievements of the Louisiana Association are due to the effective leadership of progressive citizens like Mr. Marquette.

TABLE IV. Purchase Power of Median Teachers' Salaries and Average Superintendents' Salaries by Classification of City, After Deducting State and Federal Income Taxes

Size of Cities	*Single Teacher*			*Superintendent*[1]		
	1940–41	*1946–47*	*1950–51*	*1940–41*	*1946–47*	*1950–51*
2500–	$1,116	$1,147	$1,456	$2,234	$2,235	$2,654
2500–5000	1,214	1,207	1,593	2,842	2,433	2,977
5000–10,000	1,275	1,236	1,635	3,339	2,634	3,261
10,000–30,000	1,479	1,246	1,575	4,123	3,115	3,746
30,000–100,000	1,717	1,544	2,034	5,976	4,286	5,244
100,000+	1,921	1,737	2,071	7,680	5,385	6,555

[1]With two dependents.

Table V has the same relationship to Table IV as Table III has to Table II. Column I shows the percentage of increase or decrease in the value of teachers' salaries in 1946–47 as compared with the 1940–41 salaries. Column II shows the percentage of increase or decrease of 1950–51 salaries as compared with the 1940–41 salaries. Columns III and IV explain the percentages of increase or decrease in superintendents' salaries.

Except for teachers in cities of less than 2500 in population, take-home salaries of teachers were worth less in 1946–47 than in 1940–41. Median salaries in all city classifications, however, were worth more in 1950–51 than in 1940–41. The percentage of increase ranged from 6.5 in cities of 10,000–30,000 population to 31.2 in cities of 2500–5000.

TABLE V. Percentage of Increase or Decrease in the Take-Home (1935–39) Purchasing Power of the Typical Teacher and the Typical Superintendent in Each City Classification as Compared to 1940–41

Size of Cities	*Single Teacher*		*Superintendent With Two Dependents*	
	1946–47	*1950–51*	*1946–47*	*1950–51*
2500–	+ 2.8	+30.5	*	+18.8
2500–5000	— .6	+31.2	—14.4	+ 3.8
5000–10,000	— 3.1	+28.2	—21.1	— 3.3
10,000–30,000	—15.8	+ 6.5	—24.4	— 9.1
30,000–100,000	—10.1	+18.5	—28.3	— 1.2
100,000+	— 9.6	+ 7.8	—29.9	—14.6

In 1946–47, the take-home value of the average superintendent's salary in cities of less than 2500 population was equal to the value of the 1940–41 salary. In all other city classifications, salaries had decreased in value, the decreases ranging from —14.4 per cent to —29.9 per cent. By 1950–51, the average salary of superintendents in cities up to 5000 population had become of more value than in 1940–41. In larger cities, however, salaries were not equal to their 1940–41 value. In general, it appears that the larger the city, the greater the percentage of loss the superintendent has suffered.

From the data presented, it is apparent that much has been done in Indiana to raise teachers' salaries. There can be little doubt that such raises were necessary and proper. The unanswered question is whether the superintendent was overpaid in 1940–41. If he was overpaid, he may be getting proper compensation today. If he has never been overpaid, it seems that his salary raises have been too small. In view of the fact that his leadership is so valuable and his responsibilities so great, the problem deserves careful consideration.

UNWISE SNIPING

A Maryland teacher, writing to the *Washington Star* in answer to another teacher who had found fault with the present policies of the schools, said:

"As a teacher, I have no direct contact with the county office, but I have much confidence in the ability of our county board of education. They select capable men to get out our educational program. It is unprofessional for teachers to snipe continually in public at the plans of the administrators."

It is an unfortunate characteristic of certain teachers, that they hold a constant grudge against the school board and the superintendent and thereby give the enemies of the schools the ammunition needed to make opposition effective.

If War Should Come —

Is Your School Ready for the A-Bomb?

*Robert E. Wilson, Ph.D.**

For the second time within a decade school administrators find themselves obligated to prepare their teaching personnel and school buildings for protection against air raids. As revolting as the idea may be, we cannot duck the responsibility for the job. In fact, the obligation becomes an even more compelling one this time in view of the rapid development in mechanical warfare. We can no longer feel smug about the isolated position of this country.

The job is distinctly more difficult this time than were the preparations for World War II. We must not only take preventive steps against the possible use of general-purpose and fire bombs but also against the dreaded atomic bomb. Although many of the precautions will be the same as in the last war, there are certain further steps to be taken which are forced upon us by the destructive potentialities of the atomic bomb.

School administrators will once again be faced with the lack of information as to proper procedures for this protection. To date, there are practically no instructions available from civil defense authorities as to exactly what are the best steps for protecting children in school buildings. Nevertheless, administrators cannot postpone their responsibility too long; they must go ahead making the best preparations possible by capitalizing upon the rapidly growing sources of information regarding preventive measures that can be taken in dwellings. We do have considerable information about the destructive characteristics of the A-bomb. Thanks to this nation's experiences at Hiroshima, Nagasaki, and Bikini we know that there are definite limitations to the bomb. It does not mean the end of civilization. On the other hand, we must not underrate its destructive force, and we must take whatever steps possible to alleviate the dangers. It is probably true in every community that no other agency has as much responsibility as we do in safeguarding the lives of the community's children.

It almost goes without saying that any preparations in the school for air raids should be co-ordinated with the local civilian defense plans. It is highly recommended that the schools be represented on that body. Much general assistance can be obtained from this source even though particular plans for individual school buildings will have to be developed by school personnel. It is the purpose herein to set forth specific facts and principles which will aid school officials in their plans.

* Assistant Superintendent of Schools, Elyria, Ohio.

Three Steps in Preparation

It should be emphasized that any protective measures must be patterned to local situations and needs. The size and nature of the community, the distance of the building from the homes, transportation problems, the extent and composition of the enrollment, and the condition of buildings, and the type of structure, will effect the plans.

School officials must prepare for three eventualities in connection with defense against air attack: (1) in case an alarm is received in time to send the children safely to their homes; (2) in case no warning is received prior to the explosion; and (3) in case the warning is received in time to take necessary measures for protecting students who must remain at the building. Obviously, the first eventuality would be most desirable. Even though houses may constitute less protection than a sturdy school building, the likelihood of sustaining many casualties will be decreased if people are widely dispersed. The second eventuality will be dealt with later on, but it is the third, and probably the most likely situation, to which school officials must give most of their attention.

In preparing for this latter eventuality the administrator has three general responsibilities: (1) to study his building and prepare it for the best dispersement of personnel and for making it a safer structure; (2) to train all personnel (students, teachers, custodians, and other employees) to respond correctly to alerts and to assist in emergency work; and (3) to purchase equipment and supplies that may be needed in case of emergency.

Preparing the Building

These principles should be kept in mind in analyzing the building and determining the safest places for protecting children.

1. The upper floors are more subject to blast destruction from the air than the lower floors. In most cases the basement will be the safest place, but it is improbable that all students in an overcrowded building can get into the basement. Moreover, most school building basements are not cellars and, therefore, present hazards from flying glass and debris the same as any classroom on an upper floor. Obviously, the many new one-floor school buildings provide less protection than the conventional multiple-story buildings.

2. If the basement is utilized to capacity, the center halls provide the next safest place for groups of children since in most cases they have the less exposed windows.

3. Actually the safest place in a school building is along the lower outer wall of the basement or along a strong supporting wall within other parts of the building. The center of any room should be avoided since there is more danger from falling beams and debris. It would not be amiss to have a building inspector check for possible weakened wall structure.

4. The safest side of the building is away from the industrial or downtown sections of the community, since it is presumed that an enemy bomber would seek his target at one of these two points.

5. The closer to the ground or floor a person can get the better his chance of avoiding radiation and heat effects of an atomic explosion. Pupils should lie flat if possible or crouch facing away from the window — in either case as close to the walls as possible. Each person should close his eyes tightly and should cover his face, arms, and neck as best he can. Students should not be permitted to align themselves with windows since an atomic explosion is bound to blow windows inward, not outward, and many of the casualties of any explosion will be caused by broken glass.

6. Exits in basements and lower floors should be well marked. There should be at least one exit, preferably more, wherever numbers of children are placed.

7. In order to keep down fire hazard, trash should not be permitted to pile up anywhere around the building.

8. Every window should have some sort of shade. It would be still greater protection if windows in the basement and lower floors were glazed with mesh wire glass.

9. The shut-off valves for the main source of all utilities in the building should be well marked.

Training Personnel

After these steps have been taken to make the building as safe as possible, the personnel must be trained to react correctly and promptly. This means, of course, that there must be several practice alerts. The plans for an alert must be well thought out before any practice is attempted since it is important to establish only one proper habit in response to the alert signal. As in the case of fire drills, students and teachers must be trained to move to their assigned positions any time during the day quickly and orderly.

Certain designated jobs should be assigned to teachers, students, and custodians. All windows should be closed immediately and the shades drawn. Classroom doors should be closed after the students have left. The custodial personnel must immediately shut off all main lines of supply for heat, gas, oil, and air circulation to the rooms. The draft doors of the furnaces should be closed. The water line should be left on in case it is necessary to fight fire. All utility appliances that may be used in a classroom should be shut down.

Personnel should be instructed to remain in their protective positions until the All-Clear signal is received, staying out of the way of any emergency workers. In case of an atomic explosion it is imperative that personnel keep their eyes covered, not look at the source of the light, and remain shielded while they count to ten slowly since the shock wave effects will be dissipated within the first ten to twelve seconds. Personnel should be instructed not to drink water from the fountains since it is possible that the supply lines may have become contaminated with radioactive particles. Water thus contaminated may be made safe for drinking by distillation. Fortunately, most high schools have facilities for distilling water. It should not be a mistake for schools to keep on hand in a protected place quantities of purified water. In moving about the building after an explosion personnel should be warned not to pick up items which may have become radioactive. After an atomic explosion students should remain in the building (unless the building itself has been seriously damaged, of course) until such departure has been authorized by Civil Defense authorities. Call on the Civil Defense emergency squads for checking the possibility of children's clothing or bodies having become radioactive. If it is necessary to leave the building, a person should cover his mouth and nose with a handkerchief to prevent breathing in of radioactive particles which may be in the air if there has been a ground or underwater burst.

It is advisable to have certain emergency squads organized within the building. A team of older boys, or probably teachers in the case of elementary buildings, should be trained as fire fighters. It is possible that all the community's fire-fighting equipment be tied up elsewhere and unable to reach the building. Medical and first-aid squads should be trained to treat burns, cuts, fractures, and shock. All teachers should be prepared to handle these cases. A team of messengers should be made available in case communications have been cut during the attack. Boy Scouts will fit into this picture well. It may be advisable to organize rescue squads to clear debris within the building and to release students who may be trapped. The older children must be prepared to help the younger.

Other Precautions

There are other things that can be done for such an emergency. The principal should have posted by his telephone a list of emergency calls — fire station, police station, doctors, hospital, Civil Defense Headquarters, utility companies. It is recommended that the principal have a private, unlisted line that he can use in such an emergency. Hysterical parents will be attempting to call the building and this will interfere with the principal's emergency actions. Students and teachers should be instructed not to use the telephone except with the approval of the principal. Although in all such emergencies the principal will be considered the commander of the situation, at least one other person should know the routine in case a mishap befalls the principal.

Within a classroom unnecessary movable items and ornaments which might constitute hazards as flying missiles should be removed, possibly even to the point of temporary sacrifice of the educational program.

Schools whose students are mostly transported have additional problems in this respect. Plans should be worked out in advance for getting students home since it is not out of the realm of possibility that transportation facilities and streets will be put out of order. It may be necessary to plan for accommodating students overnight. As a matter of fact, in case a community is hit, it is likely that the school building will become an emergency hospital.

Simple, concise instructions for reaction to an alert should be posted throughout each school building for the benefit of visitors who may be in the building at the time, or in case an attack comes when the building is in use during out-of-school hours.

Obtaining Supplies and Equipment

A few supplies and equipment will be needed for the best protective measures. In the first place, a signal system must be installed that can be easily differentiated from the usual firebell. In most cases the customary bell system that exists in the building will suffice if a proper signal is developed which all personnel will understand. A public-address system for inter-room communication and for issuing instructions is most desirable. By all means a radio should be available in the principal's office since instructions from Civil Defense authorities will be made to the public primarily by means of radio. It is all right to use a radio and telephone even after an atomic explosion since radiation does not effect these facilities. Battery-operated, portable sets are recommended in preference to electrical sets to allow for the possibility of the community's electric power facilities being destroyed. A "ham" operator and set will come in handy if such are available in the building. A separate, direct communication with the central Civil Defense Headquarters would be still more desirable.

First-aid kits containing gauze, bandages, iodine, vaseline, a good burn cream (not lotion), and ammonia for treating shock patients should be available in the building. A strong detergent should be on hand for washing radioactive particles from the exposed parts of the body. Emergency fire-fighting equipment such as buckets of sand and water are advisable. Blankets should be on hand for helping shock patients.

If No Warning Received

If the above measures are taken an administrator can rest assured that he has done about all that he can do to protect his charges in case an alert is received in time for carrying out these steps. He must also train students and teachers for the other eventuality — an improbable but possible surprise attack in which no warning is received. If an atomic bomb should explode without any warning, persons in the school building can help themselves some but they must be trained to act quickly. They have just three seconds after the sudden, blinding, and intense light. Since the important thing is to protect oneself against flash burn, the effects of the bomb on the eyes, and flying debris, students should be trained to immediately cover their eyes and face and instantly seek as much protection as can be found. In most cases this will mean that students will cover their eyes, and get under desks, tables, or any other near object which will afford protection against flying glass and debris. It will be necessary to have practices for this eventuality also.

Don't Arouse Hysteria

In making preparations for safeguarding children against air attacks school officials have two conflicting problems. On the one hand, they will find it difficult to arouse sufficient interest among students and teachers to assume their individual responsibilities for taking precautionary steps. Civil Defense Authorities are ex-

A Working Board of Education

PULLMAN SCHOOL BOARD SELLS BOND ISSUE

The Pullman school district at Pullman, Wash., on February 23, sold $150,000 in building bonds to a Seattle financial firm, which submitted a bid of 1.614 per cent, the lowest of five received. The directors of the board pictured above are (from left to right): Supt. Louis Bruno; C. S. Holton, chairman; Philip Keene, Lindsey Staley, R. A. McBride, vice-chairman; and Paul Slusser.

The members of the board are all men of wide experience and high respect in the community and the state. Dr. Holton is a Department of Agriculture pathologist; Philip Keene is an architect with State College; Lindsey Staley is a cattle breeder and ranch-owner; T. A. McBride is co-owner of a drugstore and pharmacist; Paul Slusser, the youngest member, is a farmer and cattle breeder. Supt. Louis Bruno is a former high school principal at Raymond, and has served as high school supervisor for the State of Washington.

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periencing this same lethargy in dealing with the general public. We in the United States have yet to experience an air attack by any enemy. Moreover, after finally overcoming the public inertia for this same possibility in World War II and after civil defense plans were well developed, nothing happened. There is still too much apathy toward the potential danger. However, administrators can overcome this indifference by a well-planned campaign of discussions, lectures, posters, films, and other media of publicity which promise effectiveness in the community.

On the other hand, school officials must avoid arousing unnecessary anxiety and fears, particularly among our very young clientele. All educators are familiar with the danger of exciting youthful minds to the point of hysteria and frustration, not only in time of emergency but in daily living. Somewhere a happy medium must be found.

These preparations are time consuming but not difficult. The administrator who is skeptical about the necessity for taking these precautionary steps should merely ask himself: "What can I say to the parents of just one child wounded or killed by enemy air attack if I have not prepared my building and my students in terms of the available defensive information?"

SELECTIVE SERVICE PLANS NATIONWIDE TEST FOR DRAFT REGISTRANTS

Major General Lewis B. Hershey, of the Selective Service System, has announced plans for a nationwide test to afford draft registrants an opportunity to demonstrate their aptitude for college or university work. These test scores in college or university will be used by local draft boards in determining the eligibility of registrants to be considered for occupational deferment as students. It is estimated there are 1,000,000 male, nonveteran students in colleges at the present time, but it is not known how many of them may be deferred.

Under the new plan, student deferments will be based upon either capacity to learn as demonstrated by the tests, or upon scholastic performance as evidenced by class standing. The tests, to be administered by the Educational Testing Service of Princeton, N. J., will be given at 1000 examination centers throughout the country. The tests will be given on May 26, June 16, and June 30, 1951, to college seniors and others contemplating entrance into graduate or professional schools, and to other students who have already begun and who plan to continue their college studies.

ARMED FORCES UTILIZATION OF CIVILIAN SCHOOLS

Educators are asking, "Will the army, the navy, the marine corps, or the air force increase the number of ROTC and NROTC students? Will the services revive such programs as the ASTP and V-12?" In short, educators would like to know to what extent the services are planning to use the educational facilities of civilian institutions in training an armed force of three and a half million.

The department of the army has selected institutions at which to locate 36 new ROTC units in 33 colleges, of which 25 are new to the program. This action brings the army a total of 481 senior division ROTC units in 235 colleges and universities. The navy at present has 52 NROTC units at which naval and marine corps officers are trained. The air force is in process of selecting additional institutions at which 62 air ROTC units will be located. This increase will bring the air ROTC total to 187 units.

Under a new regulation of the Office of Price Regulation, dated March 29, 1951, schools and colleges are excepted from the control of rates of tuition, fees, and other charges for services rendered by the institutions in providing a supervised course of instruction.

This boy is preparing an aluminum tray for etching in the arts and crafts shop.

POPULAR SUMMER DAY CAMP IN NORMANDY

*J. N. Vonckx**

The board of education of Normandy, Mo., will again assume responsibility, in co-operation with community parent and service groups, for a third annual session of Camp Viking. This is a summer day camp for children aged 6 to 14 which has become so popular that last summer half again as many children were turned away for lack of facilities as were served, in spite of a substantial expansion over the previous year.

*St. Louis, Mo.

The start of the balloon derby. Each balloon bears a slip giving the owner's name, age, and address. First, second, and third prizes are awarded distance winners.

Students Enrolled Early

Enrollment for Camp Viking takes place during the late spring at 12 public and parochial schools in the district by members of the Mothers' Clubs and P.T.A.'s. In this way Camp officers know for how many children in each age group they are to prepare.

School buses pick up children at central locations in each neighborhood at about nine in the morning. Each child brings a sack lunch daily and a bathing suit on days when he swims, usually twice a week. Arriving at Normandy High School grounds, he is met by his councilor, who remains with him throughout a day of varied activities. Group games, archery, swimming in the high school pool, story hour, craftwork, rhythms, movies, and special trips to forest preserves, parks, zoos, and other points of interest constitute the program.

The St. Louis County Library has a bookmobile on the grounds two afternoons a week, with a storyteller. The local Kiwanis Club provides instructors and supplies for a baseball school for older boys every morning. The nurse, who is in constant attendance, conducts classes in health and first aid for girls in sixth grade and beyond. Thursday is known as Feature Day: there are special trips and a one-hour motion picture program. Balloon derbies are held at the middle and at the close of the six-week Camp period. Each child is given a helium-filled balloon, to which he ties a slip bearing his name, age, and a request that the finder mail back the slip. Children whose balloons travel the farthest are awarded three, two, or one free week in Camp. In case of rain, councilors receive a "rainy-day" schedule. In this schedule all outdoor activity is curtailed and there are double shifts in the craft shops, gymnasiums, and swimming pool, and the motion picture room operates continually as long as the children remain indoors. At three-thirty buses start loading children for the homeward trip, and every child arrives shortly after four.

Parents Participate

Every other Friday evening during the Camp season parents are invited to bring the entire family to the spacious high school campus, where their children spend the day, for picnic suppers and entertainment. After eating, there is a program consisting of music, archery for all, swimming, craft exhibits, etc. These gatherings afford parents an opportunity to meet the councilors and specialists in charge of their children, and often to try out the activities in which the children engage.

Since about eight hundred children attend the camp each week, it is apparent that transportation is an important problem. Four of the regular school buses serve the camp, making two trips each, morning and night. In addition they transported campers on 24 special trips last summer. These large numbers were transported without accident or mishap of any kind, thanks to the precautions taken by the drivers and the councilors.

Camp Viking is held on the campus of Normandy Senior High School. Here, among grand old trees, is ample room for the sand piles of the little folk and the outdoor games and programs for students all ages. Four baseball diamonds, an archery range with baled-hay backstop, and a general game field affording paddle ball, box hockey, badminton, bean bags, volleyball, and three softball diamonds are available. Indoor facilities include swimming pool, two gymnasiums, a motion-picture theater, three craft shops, a cafeteria, locker rooms, and offices. Camp personnel at Normandy believe that any good public school building can house a good summer day camp project.

Children enjoy showing their parents how to shoot on Family Nights.

Councilors Are All-Important

Camp Supervisor, C. E. Potter, and his assistants have found that the success of the Camp depends upon the caliber of its councilors. All 32 of them last summer were Normandy people: 10 were teachers, 15 were teacher-trainees, and 7 were outstanding high school boys and girls who had shown definite leadership qualities. There were also 5 paid and 23 volunteer assistants. Voluntary assistants are high school students who, after serving a year without pay, generally are employed as councilors. In addition, specialists are employed in swimming, baseball, arts and crafts, archery, games, motion pictures, and rhythms. Washington University, of St. Louis, assigned four practice teachers in arts and crafts last summer, who worked under the specialist for college credit. The Camp staff is completed by the nurse.

Naturally, as Camp Viking has grown, its budget has also increased. The largest source of income has been camp tuition. The charge was $2.50 per child per week last summer, with a special price of $2 per week per child to those parents sending more than one. These fees amounted to about 60 per cent of the income. Other sources were the donations of the board of education, parent groups such as P.T.A.'s, and service clubs. With obligations of $16,500, Camp Viking closed with a balance of $300.

The Camp staff offer the following recommendations for next year's operations, which might be helpful to any other group contemplating a similar project:

Important Recommendations

1. It is better to serve younger children in outlying centers nearer their homes.

2. While many requests have been received for extending the camp period, it is felt that the period should be maintained at six weeks. It would also be wise, as the demand increases, to limit any one child's attendance to three weeks.

3. It is the opinion of the staff that until facilities to handle 1500 to 2000 children are available, a charge of $2.50 per week per child, without reduction, should be maintained to meet rising costs and to hold attendance at a figure that the facilities will handle.

4. Parent organizations should continue to have a hand, in an advisory capacity, in the management of the camp. Relief from the burden of financing should be shifted more and more from the parent organizations to the parents themselves.

5. The plan of paying for enrollment in advance has worked out well. Advance information on this should be publicized so that parents will know well in advance of the date of enrollment and payment.

6. The plan of using voluntary assistants to train them to become councilors should be continued.

7. Every effort should be made to reduce the camper-councilor ratio. That of 1950 was 1 to 24. However, reduced camper-councilor ratio means increased cost per child.

Success Comes in the —

Psychological Moments in School Administration

*J. R. Shannon**

Man has a peculiar fondness for dividing things into threes. (Or does he? Maybe things divide themselves into threes, and man merely recognizes the fact.) All Gaul was divided into three parts; time consists of past, present, and future; a well-written exposition has an introduction, a main body, and a conclusion. Then there are the French tricolored cockade, the three balls in front of certain business establishments, the three classifications of gender in grammar and in anthropology, masculine, feminine, and sometimes school teachers.

Three Types of Procedure

In like manner, there are three types of procedure in school administration, or three types of personalities among administrators. The late Professor James C. Miller, of the University of Pennsylvania, called them the demonstration type, the responding-to-pressure type and the evolutionary type. The demonstration type is that of the young, impatient, impulsive, idealistic, impractical man who has a vision but forgets Rome was not built in a day. He makes an immediate showing but fails to carry public opinion with him; he gets ahead of the procession and soon loses his job. The responding-to-pressure type is that of the old, cowardly man who tries to straddle the fence, keep his head in the clouds and his ear to the ground all at the same time. His school system muddles along, awaiting initiative of pressure groups who are neither idealistic nor scholarly. He admits to himself that his job is too big for him but vows to hold on as long as he can. The evolutionary type is in between, neither ahead of nor behind the procession. The administrator following this pattern has the vision of the young firebrand but more judgment. He is in the driver's seat but influences others to propose what he already has planned, thus getting public support by making others feel that they are carrying the ball.

The zealot type of administrator is more interested in ends than in means, and by driving relentlessly — often injudiciously or even unscrupulously — toward his ends he not only hurts himself but also defeats the cause he espouses. He forgets that a man convinced against his will is of the same opinion still. He forgets that if he can lead people into a course of action by his dynamic manner or personal charm, or by wire pulling, his successor can lead them out of it by the same devices. Unless the public — and the school board who represent them — are individually and collectively sold to the course of action, it cannot succeed permanently and become a starting point for still further advances.

Reputable psychological research has established that the path of an emotion resembles the graph of the learning curve slightly, but only slightly. As the stimulus producing the emotion is applied and continued, the emotion grows more and more intense with the passage of time until its peak is reached. Then it drops almost abruptly. If the stimulus is continued beyond the time of the peak, an opposing reaction sets in. In like manner, when group sentiment for a project waxes, it becomes more and more intense with time until it reaches it peak, and then it wanes much faster than it rose.

Educating Board Members

A wise school superintendent will strive to educate the members of his board. The best way to do this is by counsel in open board meetings. Another good way is through periodic and annual reports. A third device is by encouraging the board member to read current literature in the field. The superintendent will keep the education of his board members constantly in his own mind but not constantly in their minds. Insistent, persistent hammering away at a point will not get results. Board members don't like it as a steady diet.

Ellwood P. Cubberley used a diagram to show the path of educational progress which a superintendent should expect to find normal for his board. The diagram was not a straight line extending from "the lowly earth to the vaulted skies" like Jacob's ladder; neither was it a continuous curve representing the locus of points which can be determined by an equation; it was not even a zigzag line with lifts and plateaus in uniform gradation like a stairway. It had lifts and plateaus in a random arrangement, with both the elevations and the plateaus between them varying in height and length, and with no predictable pattern. It indicated that although a competent superintendent might hope to see his board members advance in their concepts of what is desirable and possible in school organization, he should not hope for a steady advance.

The rambunctious young demonstrator, with his irritating eagerness, has more virtue on his side than his opposite type, the responding-to-pressure, safety-first type of superintendent. Somebody has said a superintendent of the latter type should be called the school custodian: cussed by the minority and toadying to the majority. The young zealot is a good man to have around when the public is demanding action, but the old sycophant is never welcome in professional society. The demonstration-type superintendent errs by hoping to keep his board and the public on a mountaintop of fervor forever; the responding-to-pressure type errs by hoping to stay continually in the valley.

A superintendent of the evolutionary type will choose as the big objective in his first year in a new system the task of learning his job. If he follows a superintendent who was successful, or who was regarded by the board as successful, he will strive for continuity of policy. Only when he follows a failure, or a superintendent whom the board regarded as a failure, will he aim to put on his own act from the beginning, and even then he will veer away soon from the role of reformer. But in either case, he will despise perpetual doldrums.

Correct Timing Is Important

Human nature is not built to endure forever on mountaintops, but on the other hand it soon wearies with the monotony of the valley. It likes to alternate from exaltation to ennui, but not in a fixed rhythm. The evolutionary-type superintendent will play ball with human nature. He will capitalize on recurring pulsations of public sentiment, making long strides upward with each resurgence, and then will give the public a breathing spell for recomposure. But he will go farther than following the passive role of waiting for psychological moments; he will help create them. If he did not, he would have no pitcher warmed up when the inning began; he could have no program.

"Psychological moment" is defined by Webster's latest unabridged as "the occasion when any action or vent is most certain to have full effect on men's minds, as by reason of exceptional interest, ex-

(Concluded on page 86)

*Sacramento State College, Sacramento, Calif.

Co-operation Solves Most —

Teacher Problems Which Face a Superintendent

*C. A. Weber**

There is a significant difference between studying the theory of the internal combustion engine and dismantling the gasoline motor of a balking power lawn mower. The former is a more important and significant assignment in the long run, but anyone who has been confronted with the second situation knows that, for all practical purposes, finding the trouble in the lawn mower is of paramount importance too. Furthermore, location of the trouble in the power mower may stimulate extensive learning about the whole theory of internal combustion engines.

Similarly, extensive research concerning the education of teachers is of greater significance than studying the problems of a relatively small number of public school teachers. Yet every practicing school principal or superintendent knows that the problems in his own school must be discovered and solved if the local educational machinery is to function for the best interests of the children in his community.

Questionnaire Method Used

For the purpose of helping a small group of school people in discovering the problems of teachers in their schools, an inquiry was conducted in their respective schools. Teachers were requested to make lists of the problems which they considered to be most in need of solution. Teachers were requested to be frank and brief with the assurance that their anonymity would be carefully guarded. Each teacher was requested to list the problems in the order of their importance as he or she saw them.

Replies from 321 teachers from 16 school systems were tabulated. If a problem was listed among the first three in importance, it was weighted as 3, if it was among the second three it was rated as 2, and if it was below sixth it was rated as 1. Table I below shows the results of the inquiry listed in order of their weighted frequency.

In addition to the problems listed in Table I these teachers listed others, but infrequently. These appear in a simple list in Table II.

The mere listing of the problems recognized by teachers as of significance is not as important as the comments made by teachers regarding these problems.

The teachers were requested to make statements concerning the two or three problems listed as most important. A summary of typical statements regarding a number of these problems sheds much light on the situation.

Salary Complaints

Regarding salaries and salary schedules the teachers complained that:

1. Since the salary schedule usually recognized only two factors, namely years of teaching experience and degrees or credits earned in teacher educating institutions, there was little incentive to become creative or artistic in teaching.

2. Teachers with dependents were unable, in many cases to make ends meet unless they sought supplementary employment.

3. The salary schedule represented the thinking of a few top people who merely accepted the general pattern of salary schedules used by other school systems.

These statements regarding salary schedules and salaries indicate that the stage has not been set in most schools for real creative work on salary schedules. The plans for school administrators, teacher organizations, and teachers are more often the results of habit and tradition than products of creative, intelligent problem solving. Somehow school administrative organizations and educational leadership must be utilized to develop new approaches to the problem.

Comments on the problem of orientation of new teachers indicated that, in general, this job was done by school superintendents and school principals with little or no help from professional members of the staff. Plans for such orientation were devised, in the main, by the administrators; and these plans were likewise carried out by directive from the top. The teachers seemed to feel that if teachers themselves could have a larger share in devising plans of action for orientation of new staff members, the program would be much more effective and acceptable.

TABLE I. Problems of Teachers

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School regulations	27
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Retirement policies	25
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Extra pay for some teachers	23
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Evaluation of teaching	22
Recreation for teachers	22
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Lack of definition of duties	20
Overorganization	19
Merit ratings	19
Transfers of teachers	19
Homogeneous grouping	18
Time of professional meetings	17
Gratuitous services expected	16
Poor rest rooms	15

TABLE II. Additional Problems Listed by Teachers

(*In order of frequency of mention*)

1. Certification
2. Leaves other than sick leave or sabbatical leave
3. Should I stay in the profession?
4. Supervision of practice teachers
5. Parent-teacher organizations
6. Study hall duty
7. Understanding duties of supervisors
8. How to change jobs
9. How to make community contacts
10. Income taxes
11. Time off for professional meetings
12. Community service requirements
13. Teacher's liability for injury to pupils
14. Old v. new methods
15. Car parking
16. Attendance records
17. School regulations regarding summer session and extension study
18. Cumulative records
19. The testing program
20. Being bored with teaching

Pupil and Parent Problems

Problems pertaining to teacher-pupil rapport were largely due to rules and regulations regarding grouping, marking, discipline, and restrictions. In many cases these regulations were determined for the teachers without their having any part in such action. Teachers felt that if teachers could have a larger share in determining school policies relative to such matters, better results would be obtained.

Teacher-parent rapport as a problem was related directly to a suspicion on the part of some teachers and principals regarding parent-teacher organizations and parent-teacher planning. In some situations teachers reported that principals actually opposed any parent-teacher organization whatsoever because they didn't have faith in the motives of parents.

In similar fashion, the teachers who listed

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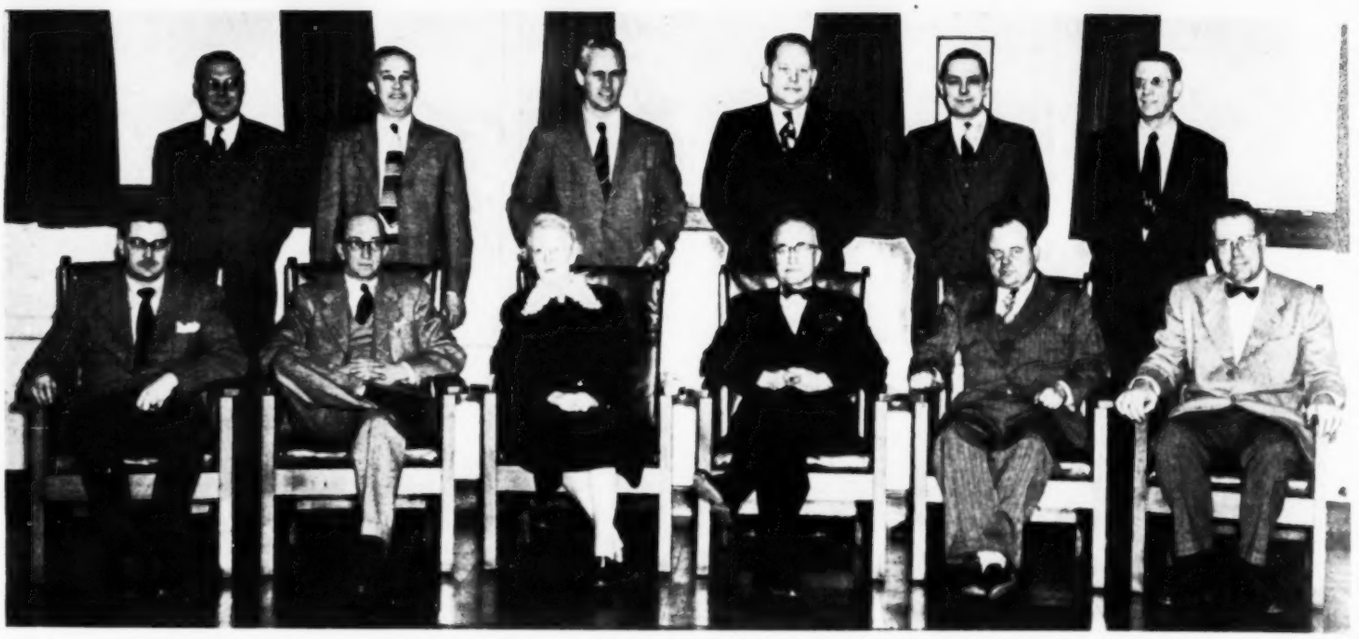


BOARD OF EDUCATION, MALONE, NEW YORK

A progressive city of nearly ten thousand population, located only a dozen miles from the Canadian border, Malone has a progressive school system in charge of a board of ten members. Four members are practicing attorneys; all the members are civic leaders who have met the problems of the schools with a keen appreciation of the value of a sound education program. Seated (left to right): Ralph Cardinal; William Howard; Mrs. S. C. Coleman; Alfred Brooks, president; Paul Cantwell, attorney; Fred Mason. Standing: Frank Lawler, attorney; Dr. George Gingras; Galneau Pond, attorney; Donald Dunnan, superintendent; Claude Clark, attorney; Dan Beaman, clerk.

the problems above felt that problems of sick leave, teacher health, in-service education, selection of new staff members, teacher evaluation, merit ratings, and most of those listed could be better solved if teachers had a much greater part in the planning.

In one school the teachers reported that the superintendent and board had devised a plan requiring that all teachers take an extension course to be provided by the board but paid for by the teachers to study the use of audio-visual aids in the schools. Such action, although typical, serves well to illustrate the need for more teacher planning in the determination of policies.

If the reader will re-examine the problems which were considered to be of importance to these teachers, he will observe that most of them could be solved by co-operative work on the part of all those concerned with operating the schools. Unfortunately, the professional staff in most schools has had little opportunity to share in the determinations of educational and school policies. Too often the administrative head of the school has been looked upon as the person whose clear vision, mature judgment, and educational background would give definite direction to the thinking of every member.

Co-operative Solutions of Problems

Research seems to indicate quite clearly that teacher problems are most likely to be solved when teachers themselves have a definite part in planning, inquiring, determining policy, and in devising plans of action to solve their problems.[1]

Boards of education should encourage the type of leadership which brings about co-ordinated, co-operative thinking and planning on the part of all those concerned with the teaching-learning situation: board members, administrators, teachers, pupils, and parents. This means that boards of education should be responsible for the kind of educational planning which will guarantee that administrative heads are skilled in bringing teachers to common agreement and skilled in bringing teachers, pupils, and parents together to attack problems of teaching and learning. The need is for such administrators rather than experts who will be expected to initiate plans of action for the solution of problems and then impose such plans upon the staff.

In evaluating the worth of a school administrator, the board of education should seek affirmative answers to such questions as:

a) Does he bring about co-ordinated, co-operative thinking and planning by teachers?

b) Does he substitute leadership for authority?

c) When deliberations of the staff are completed, does he see to it that the agreements reached by the staff are executed with effectiveness and understanding?

d) Is he the servant rather than the master of his colleagues?

e) Are the proposals made by the administrator to the board the results of the consensus of the best judgment of the entire staff?

The most important criterion by which a board of education should judge the work of an administrator is found in this question, "Have the teachers who have associated with him grown in their ability to inquire, plan, and evaluate together?"

Useful School Board Policies

Boards of education should adopt policies which provide for co-operative efforts. They should promote the pooling of the best judgments of the staff in such matters as curriculum, new buildings, physical conditions of work, salary schedules, provisions affecting health and hygiene, materials of instruction, the school budget, leaves of absence, determination of policies, and the solution of teacher problems.

Teachers have obligations too. Unless teachers are willing to accept the responsibilities incident to co-operative planning, authoritarian procedures will dominate the administration of public education. When elected to serve on committees, teachers should pursue their assignments with energy and seriousness of purpose. Faculty members in study groups, forums, panels, and public conversation have an obligation to contribute faith fully and vigorously.

The problems listed by these teachers can be solved effectively if the objective arrangements are such as to make co-operative study and planning not only possible but inevitable.

[1]Weber, C. A., "Promising Techniques for Educating Teachers in Service," *Educational Administration and Supervision*, Dec., 1942, pp. 691-695.

A Practical Answer —

What Can School Board Members Do to Answer Criticisms of Public Education?[1]

Irving R. Melbo[2]

The Problem. This is a problem in organization. It is a problem of how to develop a systematic and orderly procedure whereby a school district can receive, study, and answer criticisms about public education.

Perhaps even more fundamental, it is a problem of how best to organize the resources of a school district to deal with a conflict in ideas, because a criticism essentially involves an idea different in some way from that represented by current school district policy or practice.

Who Criticize the Schools?

Sources of Criticism. Criticisms of public schools may relate to almost any phase of a district's policies or to any aspect of its program of educational services. We are not here concerned with an analysis of the specific topics or subjects of criticism, except to note that they are manifold.

We are, however, concerned with the sources from which criticisms come. These can be identified broadly as individuals and groups. They may be external, from outside the school system, or internal, from within the school system. We are also concerned with the directional flow of criticism. For the external sources this can be described generally as follows:

1. Criticisms about schools come from individuals (pupils, parents, citizens) to the personnel of a given school unit or to any given operating division of a school system.

2. Criticisms come from individuals, typically parents or citizens, to the personnel attached to the central administration.

3. Criticisms come from individuals, typically parents or citizens, to the members of a district's governing board.

4. Criticism may also come from organized groups to a given school unit or other operating division, to the central administration, to the governing board, or to any combination of the above recipients.

The internal sources of criticism are typically from employees of the district, either as individuals or groups, to a school unit, to the central administration, to the governing board, or to any combination of them.

It is recognized, of course, that criticism may flow from individual to individual in the community, from individual to group or group to individual, or from group to group. But until the criticism reaches the school organization it cannot be handled by a systematic and orderly procedure.

How to Receive Criticisms

Attitude Toward Criticism. Perhaps no person feels more keenly the impact of many of the current criticisms levied against public education than does the average school board member. This is true because the very nature of school board membership is such as to attract citizens who are genuinely public spirited and sincerely interested in enhancing the community welfare through the process of education.

Therefore, from a standpoint of personal interest as well as that of official responsibility, school board members automatically become the front line, along with the employees of their district, which must absorb or answer the criticisms — both deserved and undeserved, thoughtless or calculated — hurled against the schools.

The intelligent and responsible school board member should not feel that a criticism about public education in his district is a personal criticism of his trusteeship. Correspondingly, for his own peace of mind, he should not take a criticism of the program in his district as a personal affront. He must instead attempt to establish and maintain for himself a method of regarding a criticism as an idea which can be appraised objectively, impartially, and factually to determine whether or not it has any merit.

No school board member can operate from an extreme position whereby he automatically rejects every criticism as the mouthings of a crackpot or to accept it as a proved fact which cries for immediate and drastic change. There is between these extremes a position of balance which, while difficult, is necessary to the personal equilibrium of the board member and to the proper discharge of his responsibilities as the elected representative of the people.

Criticisms Cannot be Ignored. It is implied in the above that the board should regard a criticism as a suggestion or thought offered or held by someone in the community. Therefore, it must be received respectfully and in good faith even though it is new or later becomes the judgment of the board that it is in conflict with the best interests of the community and may subsequently be rejected as requiring either a change in policy or program.

On the whole, since criticisms are made by human beings, they cannot successfully be ignored as a matter of policy with the expectation that the persons responsible will thereby be happy and satisfied. Probably no person likes to be ignored and to feel that his ideas, however illogical or irrational they may appear to others, are not at least worthy of a respectful reception.

The Board Ultimately Responsible

Basic Board Responsibility. Since criticisms of public education cannot be ignored as a matter of board policy, and since the sources and the nature of the criticisms are so varied, it is obvious that not all of them can be treated or handled in the same way. Nor do all of them deserve equal attention. Therefore, it becomes necessary to consider what is the board's responsibility to receive, to study, and to answer in one way or another the criticisms which may come over a period of time from a large variety of sources on a large number of subjects.

It should be obvious that as individuals the members of a governing board can do little. The very nature of their professional or business interests demands so large a proportion of their time as to preclude them from giving personally the time necessary to handle criticisms which come even in the most satisfied of communities.

For that matter, it was never the intent of the legal structure which applies to the operation of school districts that individual board members would manage the detailed affairs of the district. This has been and will continue to be an assignment which the board must give to its employees. It is, however, possible and reasonable for the board to establish an organization which provides a systematic means of efficiently channeling criticisms.

Channeling Criticisms

Channeling Criticisms from Individuals to Schools. Since many criticisms come from individual pupils or parents, the first point of reception within the school organization itself is often a single elementary or secondary school. At this level it would constitute good administrative practice for the principal to record briefly but adequately the nature

[1] An address presented to the Los Angeles County School Trustees Association, October 30, 1950.

[2] Professor of Educational Administration, University of Southern California.

and source of all criticisms which come to him from individual pupils or parents.

Most of these criticisms he will probably handle to the satisfaction of the individual. It might also be well for him to record in such instances his solution to the criticism. In the event that he feels the criticism was unsolved, it would be well for him frankly to note that fact.

At intervals of a week or a month it would be appropriate for each principal to submit to the superintendent a report of the criticisms, their source and nature, the extent to which they have been successfully handled or remain unsolved. On the basis of such information, as it feeds in from the schools in the district, the superintendent soon has a broad base of facts upon which to act, if necessary, with proposed changes in policy or program for the consideration of the governing board.

Channeling Individuals' Criticisms to Central Administration. This same organized procedure might well apply to all operating divisions in the central administration, such as its child welfare and attendance service, its transportation service, its recreation services, its health service, its business office, or any other.

The basic premise here is that without adequate factual information as to the source and nature of individual criticisms it becomes impossible to plan intelligently a program for handling them.

Channeling Criticisms to Board Members. Board members may also be singled out as recipients of criticisms about some phase of the school system. These may come from neighbors, from business or professional associates, from service club members, or even from persons unknown to them.

Sound procedure requires that the individual board member listen respectfully and patiently until he can inform the critic that the board has a policy by which it receives such information. The critic may then be directed to transmit his criticisms to the superintendent's office where it can either be handled satisfactorily or subsequently be referred to the board in line with a policy recommendation from the superintendent.

It is probably as important for the individual board members to channel the criticisms to the superintendent for systematic study and handling as it is for the head of any school or operating division of the school system to follow a similar practice. This procedure does not necessarily give any person the "run-around." Instead, it provides a direct basis for action on the part of the responsible employees of the district.

Treatment of Group Criticisms

Channeling Criticisms from Organized Groups. When the critics of the schools are organized, it actually becomes easier to channel the criticisms than in the case of individuals. When an organized group desires action on a subject of criticism, it should be encouraged to present its ideas as a letter or resolution to the proper administrative officers for study and subsequent handling.

If such an organized group desires to make a presentation directly to the governing board and nothing else will satisfy them, they should be given a place on the agenda of a board meeting. The group should then be requested to designate a spokesman who will present the matter to the board.

As a matter of general policy, the board should take no immediate action on a matter so presented. Instead, the board should allow time to have the facts which apply made available by its administrative employees and then take appropriate action at a subsequent meeting. Only a few major criticisms of the schools can be handled successfully or satisfactorily without time for the collection and analysis of pertinent facts. There is a grave danger that hasty action may aggravate the situation and make it worse.

Channeling Internal Criticisms. The criticisms which come from employees of the district, either as individuals or as an organized group, should be channeled in the same manner as has been indicated for external sources. No different organizational plan for the systematic receipt, study, and handling of their criticisms of program or policy appears to be necessary or desirable. In fact, the experience of school districts with separate organizational units such as a grievance committee is frequently reported as of dubious value.

Encouraging Responsibility for Criticism. Freedom to criticize appears to be inherently a privilege of American citizenship and, as such, it cannot be successfully throttled. However, this freedom must also be accompanied by a willingness to accept responsibility for making a criticism.

On this assumption, it is desirable for the board to encourage persons who come to its individual members to submit their criticism through the proper channels in the district in written form. Experience has proved that this practice does not throttle criticism but it does tend to emphasize responsibility. When a citizen writes out a criticism and signs his name to it, he has automatically indicated a responsibility which may not be present in a verbal report which he is unwilling or reluctant to reduce to writing.

This procedure admittedly involved occasional difficulties in administration, but it probably has more advantages than disadvantages. In this connection, it is good policy for the board and its employees to take no official recognition of anonymous communications for which the writer has been unwilling to assume personal responsibility.

Facts vs. the Never-Satisfied

Fact as Basis for Handling Criticisms. As a further aspect of this systematic plan of organization the responsible school employees should be directed by the board to determine the facts which may apply to any given criticism and to handle criticisms on the basis of fact. No district can have too many facts nor too good a quality of facts about its own policy or program.

Fact and fact alone is the most single satisfactory basis upon which the bulk of criticisms can be handled. Probably 90 per cent of the criticisms from individuals can be satisfactorily answered on the basis of adequate facts calmly and patiently interpreted by the employees of the district.

Dealing With Enemies of Public Education. There are in many communities critics of the schools who will not be satisfied by facts or by any given course of action, concession, or appeasement. Nor is there any apparent reasonable basis of handling their criticisms without endangering the best interests of the majority of the community. In such instances the board will need to make a strong stand on the basis of good policy and hold fast to that policy.

The board must recognize realistically that in many communities there are implacable enemies of public education. The board must therefore be prepared in the public interest to endure and to combat the enmity of such persons or groups. There never has been nor ever will be a program of public education which does not have some undying enemies.

Perhaps the only way the board has of handling such critics is to neutralize them and their criticisms by strong, direct action. This may be done where facts justify by discrediting the motives of such critics as being inimical to the best interests of American democracy or of the community. It may be done in other instances by applying the pressure of organized public disapproval or disavowal.

This latter step often involves the effective mobilization of broad public sentiment. The only alternative to such neutralization action is for a board and its employees to suffer in silence the hatred of this small number of critics.

Using Friendly Groups. In recent years the well-advised lay advisory committees have demonstrated effective means by which the representatives of social and civic organizations in a community may themselves provide the best answers to the criticisms coming from their fellow members.

Men in P.T.A. Groups

The Parent Teachers Association has long been a sympathetic, powerful, and effective organization. It is possible to extend even further the influence of this organization to reach the fathers of children in school who are not ordinarily active members of the PTA. This has been accomplished by the device of a men's membership chairman who is responsible for organizing a fathers' group in each local PTA unit. This group will meet as a men's group to study and understand, and to act as may be necessary in matters relating to the school and district.

Such men's groups usually meet with men teachers, principals, other men employees of the district, or men members of the governing board. The meetings tend to be stag affairs at which there is opportunity for socialization and for developing a basis for solidarity in

(Concluded on page 86)

For Better Science Teaching —

THE PLANNING OF Functional Science Laboratories

*Victor J. H. Seifert**

Space and money, usually a lack of both, are the major factors which high school administrators, almost universally, must face when they plan their facilities for instruction and laboratory work in the natural sciences. Every high school in the nation requires study of some of the exact sciences. Most schools teach (or would if they had the facilities) four science courses — general science, chemistry, physics, and biology. Advanced courses in each of these keep an average of 75–80 per cent of the students in a school studying natural science of some kind in any given semester or term.

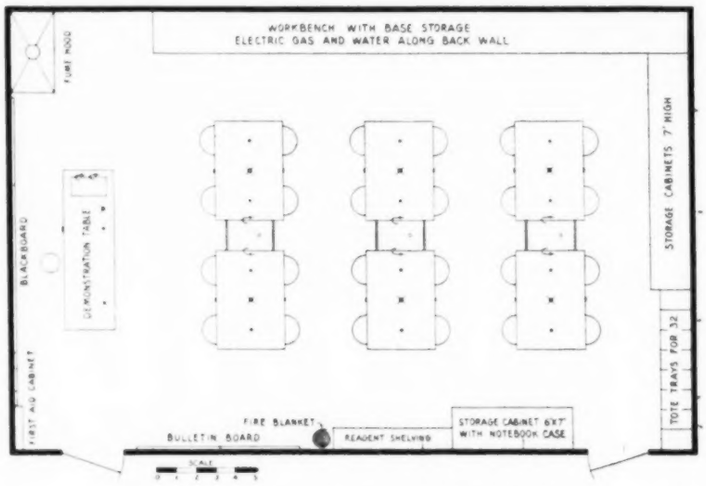
Since schools operate on as small a budget as possible, and in a minimum of space, it is essential that they get 100 cents worth of facilities for every dollar spent, and 144 square inches worth of space out of every square foot.

Space and money generally are hard to come by in the smaller schools, in small towns, and rural areas where enrollment is less than 100 or at most 200 to 300 students. Much thought must be given to planning the teaching of the physical sciences, whether it be in planning a new building, refurnishing an old one, or starting a new science room in an old building.

In most new installations and revised facilities during the past few years the instructional plan has called for the "All-Purpose Science Room" — a room in which all four of the commonly accepted high school science subjects can be taught, and which can be used most all day each day. Three things must be considered in planning the general science room:

1. There must be *adequate room*, supplies, and apparatus for development of techniques and individual abilities along scientific lines.
2. Proper arrangement of the room must make it *safe*, *practical*, and *convenient*, and provide gas, water, electricity, and apparatus and supplies for each student.
3. The room must be a place for "labor" rather than strictly for "oratory."

The drawings accompanying this article were prepared as a combination of the best recommendations of technical specialists of concerns which manufacture laboratory furniture. They also reflect experience both in selling laboratory furniture and apparatus and planning laboratories for small schools. And they represent the ideas of both school administrators and teachers with experience in schools where such installations have been made.



Plan I. A minimum laboratory. The windows are located above the workbench.

These plans can be altered slightly to fit small rooms of almost any shape so long as the number of square feet remains relatively constant.

Plan No. I, both the lowest in cost and requiring the smallest amount of space, is especially adapted to a short room. Student tables here are of the eight-student, all-purpose type, furnishing gas, water, and electricity to each student. Along the wall to the right is a 27-ft. workbench with base storage beneath. Electricity, gas, and water are available along the back wall.

Plan I was laid out basically for a high school of 60 to 100 students, for use during all periods of the day and for all four of the science courses generally taught. It can, if necessary, be used by larger high schools.

The obvious disadvantage of this plan is the fact that half the students face away from the demonstration desk. This is overcome to some extent by turning the seats one quarter. This arrangement has a disadvantage at best for it places the student in an unnatural position.

The cost of furniture for this room, not including tote trays and other furniture which must be especially built and not including installation, is approximately $2,500 to $3,000.

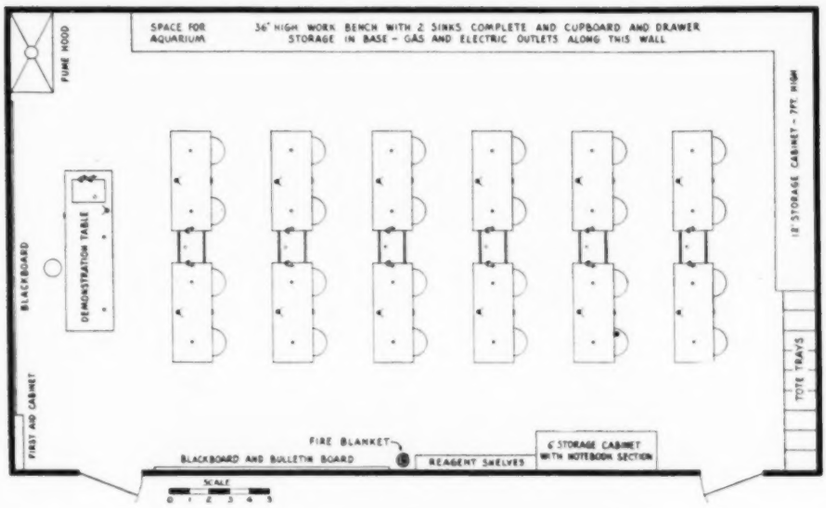
Plan II was designed for crowded conditions and for a slightly longer room. It will serve a school of 150 to 200 students for full-time instruction in the four sciences.

In this plan the disadvantage found in Plan I — namely, facing away from the demonstration table — is overcome by using four-student, one-way tables of the all-purpose type. Plan II is laid out for 24 students at the tables, plus four seated on stools at the workbench along the right side of the room if necessary. There are water, gas, and a.c. electric current at each place.

The furniture for this room will cost approximately $4,000 to $4,500. Again, this does not include installation or such furniture as tote trays, which none of the established furniture houses carry in their regular stock, but it does include all other furniture shown in the plan. Tote trays are built by all furniture houses as special orders.

Plan III is the best of the three plans. It was planned as a practical "ideal" setup within reasonable limits of space and money. It requires the largest space and the most money of the three plans. Plan

*Manager, W. M. Welch Manufacturing Co., Chicago


SPACE FOR AQUARIUM
36" HIGH WORK BENCH WITH 2 SINKS COMPLETE AND CUPBOARD AND DRAWER STORAGE IN BASE – GAS AND ELECTRIC OUTLETS ALONG THIS WALL
FUME HOOD
BLACKBOARD
DEMONSTRATION TABLE
FIRST AID CABINET
TOTE TRAYS
FIRE BLANKET
BLACKBOARD AND BULLETIN BOARD
REAGENT SHELVES
6' STORAGE CABINET WITH NOTEBOOK SECTION
SCALE

Plan II. A laboratory for twenty-four students.

III was designed for a high school of approximately 200 students but could be scaled down to fit smaller groups. The room could be duplicated in a second room, placed "at the end" of the first with their storerooms adjoining, or perhaps with common storerooms for the two laboratories and lecture rooms. This laboratory and lecture room is set up for 28 students at the laboratory tables and 28 armchairs for lecture classes. A removable wall can be placed between the laboratory benches and the lecture area.

There are separate storerooms for chemistry and for physics and biology supplies, divided by a small darkroom. Separate storerooms are highly desirable wherever possible.

Furniture for the general science room in Plan III can be had for approximately $5,800 to $6,000. In planning the wall side workbench, special thought should be given to the type of base storage. Cupboard space is highly desirable and drawer space for certain supplies and apparatus is indispensable. The "tote" tray idea is taking hold more and more in schools having to use the science room for several of the sciences. The trays in these assemblies should be at least 10 inches wide, 14 inches long, and 8 inches high (inside dimensions) and should be treated with acid resistant finish.

For building the counter height base storage cabinets, with an acid-resistant workbench top, the cost will be approximately $25 to $30 per lineal foot. Thus a counter height workbench 18 to 24 feet long will cost approximately $500 to $750.

Straight chairs to be used with student tables can be bought at $6 to $8.50 each, depending on materials and construction.

Each room should have a fire blanket and first-aid cabinet supplied with standard first-aid equipment and supplies.

In all three plans, the electrical current is alternating current. Direct current can be added by the installation of a converter or by the use of rectifier-transformer combinations at each student station.

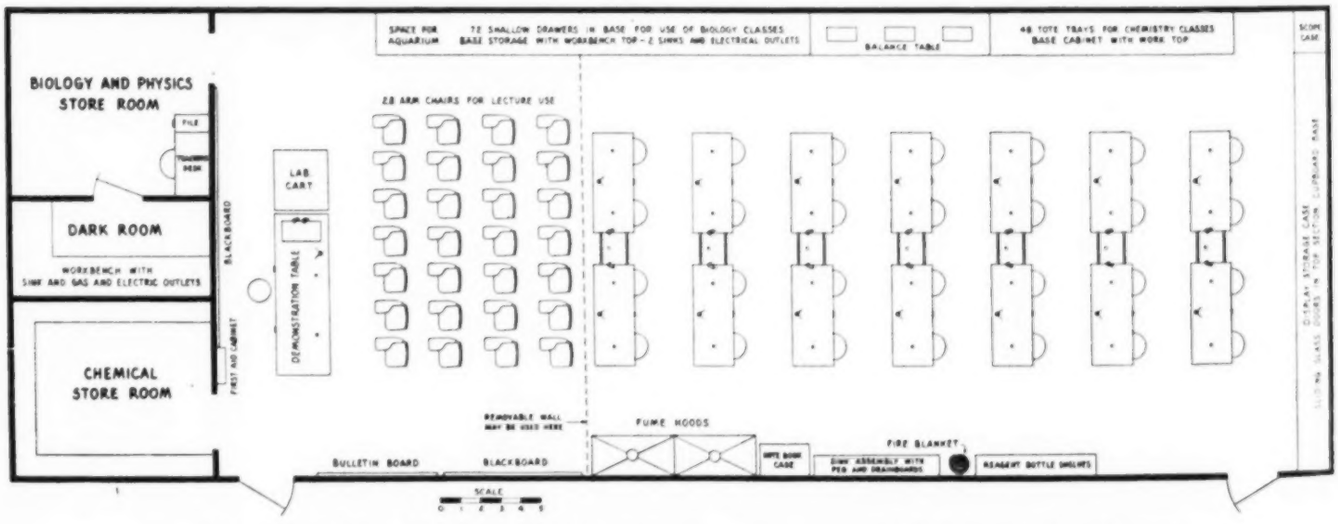
High schools with fewer than 100 students should have one room arranged to provide all services for classes of 24 pupils. There should be an annual appropriation of $175 to $250 per year for supplies, etc., after the room has once been set up with furniture, instruments, and apparatus for general science, chemistry, biology, and physics. The minimum on which such a room can be operated is $100 per year. Physics and chemistry could be offered in alternate years to juniors and seniors.

High schools with an enrollment approximating 200 students should have an annual appropriation of about $500; under no conditions should the minimum drop below $300. In high schools of more than 300 enrollment, an appropriation of $2 per student will insure sufficient money to keep up stock and add new items as they become available and desirable.

Planning should be done to permit the purchase of a few NEW LARGE ITEMS each year to the inventory of apparatus.

To provide instruments and other supplies such an all-purpose science room requires more than 800 items. Besides glassware, balances, burners, etc., several hundred chemicals are required in chemistry alone. There is practically no limit to the biological items (75–100 minimum) and some 250 items are needed for physics. (Many of these items must be provided for each student.) In addition to these, the general science courses require as many additional items as the instructor may wish to install.

In a school of 200 and up to 500 enrollment which has 24- to 32-student classes, an $8,500 outlay for apparatus and supplies will equip the all-purpose science room relatively well.


SPACE FOR AQUARIUM
72 SHALLOW DRAWERS IN BASE FOR USE OF BIOLOGY CLASSES
BASE STORAGE WITH WORKBENCH TOP – 2 SINKS AND ELECTRICAL OUTLETS
BALANCE TABLE
48 TOTE TRAYS FOR CHEMISTRY CLASSES
BASE CABINET WITH WORK TOP
BIOLOGY AND PHYSICS STORE ROOM
28 ARM CHAIRS FOR LECTURE USE
LAB. CART
DARK ROOM
WORKBENCH WITH SINK AND GAS AND ELECTRIC OUTLETS
BLACKBOARD
DEMONSTRATION TABLE
FIRST AID CABINET
CHEMICAL STORE ROOM
REMOVABLE WALL MAY BE USED HERE
FUME HOODS
FIRE BLANKET
BULLETIN BOARD
BLACKBOARD
SCALE

Plan III. A complete laboratory with a lecture area, storerooms, and dark room. The windows are located over the workbench, etc.

General Plans for —

Keeping the School Lunch Program From Going Too Far in the Red

*Elsie Maxwell**

Teamwork is the keynote of balancing the school lunch budget. The board, the school administrators, the teaching staff, the children, parents, and the manager form the assembly line. When one unit in the line slips, the result shows in the final balance sheet.

Policies of lunchroom finance vary widely. This is desirable within limits as all schools differ sharply in financial resources and community needs. However, the stipulations which each school board sets up should be stated clearly and particularly. The financial problems of a school lunch are numerous and complex. Many are so closely related to other school costs that it is difficult to make the separations. Yet definite plans have to be made so that a lunch department manager will know from where she starts and toward what goal she is aiming. Too frequently management problems are tossed in her lap to disentangle as best she can. This method usually ends in discussions and misunderstandings.

For example, many of the services common to school management also include lunchroom costs. How are these costs to be segregated? If the lunchroom is used for countless other school activities, how are the costs of maintenance to be defined? To what extent, if any, is the cafeteria subsidized? What proportion of general utilities and janitorial services are charged to the cafeteria? How are these computed? What does a pay-as-we-go plan mean? Is it interpreted as a set sum in the school budget which must be met, regardless of increasing or decreasing enrollment, community tragedies like fire, storms, flood, or unemployment? These may reduce the receipts drastically, yet the lunchroom costs must not exceed the income. Does this mean that the school lunch has failed to pay out, since its income has not met the estimated figure? Or does the plan mean, what it is usually accepted to mean, that the costs of operation have not exceeded the receipts? Twists of interpretation of statements lead to frustration and dissatisfaction.

*School Lunch Consultant, Portland, Ore.

The Lunch Budget

The compass of the manager is her budget. In new operations this may be an arbitrary estimate, but as time goes on fairly accurate figures emerge from records of past operations. These records, plus the change in dollar values and shifts in enrollment, present an accurate guide for expenditures. All plans of operation must clear that ever present and starkly realistic hurdle, the *budget*. No procedures can be contemplated, no steps taken, no course charted without budgetary consideration. It alone is the item of management which can never be overlooked, minimized, sidetracked, or escaped if one is to keep out of the red. It is the stop-and-go signal for all contemplated acts.

In formulating a budget the new manager should seek advice from every available source. The business manager, the superintendent, and the principal can give much information which will help in formulating a workable financial guide. The records of the previous manager should be valuable. To gain a figure for estimated receipts one considers (1) the cash on hand; (2) the cash value of expendible inventories; (3) the income expected from daily receipts; (4) cash subsidies anticipated; (5) accounts receivable from benefits, sales, or special activities engaged in by the lunchroom; (6) the estimated value of surplus commodities; and (7) the cash value of food traded for children's lunches.

Against this income the costs are balanced. What is the cost of required labor?

The lunchroom in a high school is the ideal spot for formal school dinner affairs. Superintendent Hunt congratulating a high school student. (Chicago Schools Photo)

The cafeteria can frequently be used by visiting educators. (Chicago Schools Photo)

What will the itemized operating expenses cost? What will needed repairs, replacements, or adjustments cost? What will food cost together with the supplies for sanitation and service? How many children will be fed free? How much will this cost?

The Test of Good Management

Then comes the shock of comparing the totals! Even though one has planned conscientiously the costs will far overshoot the receipts. Next comes the test of good management. How far can one cut these costs? What will take the place of the items considered necessary and desirable? To what extent will these lessen the amount to be spent? This step requires imagination, resourcefulness, strong mindedness, and will power. The pruning and cutting requires weighing of each proposed expenditure in the light of its contribution to the whole. It means finding a substitute to decrease costs without decreasing efficiency. Eventually, with sweat and tears, comes a semblance of balance. The need for further combing yields an exact balance. Then and then only is one ready to set up plans for work, hire labor, and begin the operations.

The *cash register* is as definitely *an important part* of cafeteria equipment as is a stove or refrigerator. The more complete the data it keeps, the more of a safeguard it is to good management. Here is the basis for all accurate records.

Every activity with which costs are connected is a matter for records. These have to do with labor rates, time schedules, hiring and work records, policies for holiday pay, social insurance, sick leave, and all other factors which affect the labor routine and the pay roll. They should be definitely stated and recorded. A file for equipment purchases, repairs, replacements, transfers, and sales must be kept. Guarantees and terms of payment should be recorded. A system for keeping track of foods and supplies on hand is of prime importance. There are many accumulative types of inventory systems available which record the article purchased, the wholesaler, the date of purchase, the specifications, the brand, the amount ordered, the delivery date, a check of amount received, the amount used, and the remainder on hand. Such finger-tip data is invaluable in keeping track of progress and making future purchases. Constant attention should be paid to discounts allowed for payments made within a certain length of time. Records of receipts and the lines served are necessary. For those school authorities who receive federal subsidy, the numbers of the full lunch and the supplementary sales are kept. Menu files, lists of recipes and revisions, together with the costs of each, aid in making plans fit the financial requirements. A simple inclusive system is more useful in the hands of an unprofessional bookkeeper than an elaborate involved one.

Personnel and the Budget

Making the budget work needs constant attention to details. Workers must be hired with a definite policy for payment indicated by the budget. If they are to be paid by the month or year, to receive the usual withholding taxes, unemployment insurance, social security fees and old age pensions, the budget will have to indicate these figures. The work must be planned so that worker's time is filled with the tasks to be done. Idle workers have no place in a well-run cafeteria, as each needless expenditure reduces children's rights for good food at moderate costs. Student help is good only in so far as it is trained to do the job in a business-like and orderly manner. In fact, all workers must be constantly trained and supervised to bear their weight of wages. A woman may be a good cook and have every desire to do a good job, but school cookery differs from both home and commercial cookery in that it is important that all the nutritive ingredients which will make an acceptable addition to a dish, are put into it. The usual cook needs training in nutritive cookery if not in techniques of gaining good flavors. The usual recipe book is only a guide to school cookery. All recipes are worked out with maximum nutritive values in mind. Parsley, for instance, is a decorative addition in the restaurant. In the school cafeteria it is chopped and added to casserole dishes, stews, and soups to supply the iron value which it contains. Seasoning vegetables are used for their nutritive contribution as well as to increase the flavor. Fussy, fancy foods are out of place on the lunch counter. School foods need to be well flavored but not highly seasoned to appeal to the children.

Another point to consider is waste. There are limits to the amount of time which can be spent in saving usable foods which are carelessly thrown in the garbage pail. Hence, cutting meat from the bones before serving and using less choice portions of vegetables saves them for tomorrow's soup kettle. A cafeteria kitchen which has a soup kettle to receive these bits of food is an index of careful management.

Good Purchasing Policies Important

The salesmen from the local food and supply concerns are eager to sell. The manager's job is to know when their prices are right and their qualities of a type and amount she can use. Unless times are abnormal and there are indications that future prices are rising, large inventories have little place on the shelves of lunchrooms which are within reasonable distance of market. It is best for the manager to estimate the volume of goods needed, set up standards for them, and ask for bids from competitive wholesalers. Many salesmen can be relied upon to give splendid market tips. However, the best source of information is the market section of the daily paper. It is the manager's bible. The classified ads, also, often point to savings. Surplus local supplies of vegetables and fruits frequently sell below market statements. Sometimes the manager may run down pieces of used equipment which are perfectly good and priced at a fraction of the new glossy models.

Buying by standards set up for particular uses is of vital importance. Foods are graded according to the uses for which they are processed. The use of less expensive grades does not mean that inferior foods are used. For example, in meats the commercial grades are less fat and higher in muscle tissue. These are excellent for stews, pot roasts, Swiss steaks, and dishes where low heat is applied for a long time. The nutritive content is greater as the protein in muscle meat is greater per pound than in the more choice grades.

Canned goods are of many grades. The choice fruits in heavy sirup are expensive and may be replaced by fruits which are just as wholesome but less choice, packed in lighter sirup. For cobblers and pies a water packed fruit is satisfactory. The sugar is added according to the needs. In food producing localities, freezing lockers save local foods for winter use. Sometimes this means hiring help during the summer months to fill the freezer. Each manager must decide if savings counterbalance the extra cost. Canned vegetables are also graded for use. The larger, older, cheaper variety of peas is more nutritious as the protein content is higher.

Fresh fruits, ordered by grade, for the particular use save much money. These are sized as to the number in the box. If apples, for example, are to be used for dessert, an eating apple such as Jonathan, Winesap, or Delicious, may be ordered in a medium size of 150 per box. When apples are served to smaller children, a smaller size, as 163 per box may be better suited. Graded apples of smaller size, in five tier boxes, are much cheaper. Cooking apples may be ungraded if they are solid and free from blemishes.

When storage and refrigerator space is available it may pay to buy meat in the carcass and have it cut and processed for uses common in the lunchroom. However, this method includes expensive cuts which are not easily used in the lunchroom. Hence, the practice may not prove a saving. On the whole, stew, soup, and ground meats meet the needs of the lunchroom more than steaks and chops.

Maintenance Costs Also Important

Many a manager is tempted to operate with less labor and to buy more prepared products. In cities there are many services which offer ways of cutting labor costs. Sandwich companies will supply sand-

Standard lunches like those offered in the schools of Berkeley, Michigan, provide the best means of developing good eating habits among small children.

wiches with a variety of fillings at different prices. Dried and dehydrated soups of every description vie with the home soup kettle. Canned chilies, canned baked beans, pies, cakes, cookies, or the mixes for them, are all dangled before the manager's eyes. If wages are high, costs may be cut to some extent. It is rare when the flavors and ingredients of prepared foods in any way approximate those made by a good cook. These advantages should be weighed carefully before they are accepted as a policy in child feeding.

Costs of upkeep and maintenance of space and equipment may be reduced by constant care and attention. Fuels, lighting, and refrigeration are costly. Heat regulated to the need of cookery; the use of oven heat for as many things as possible; getting all the supplies needed from the refrigerator when it is opened rather than fanning the door open and shut for each item and entry; measuring the amount of soap to be used in each cleaning process; having specific programs for cleaning and waxing these are practices which help reduce costs of operation. Many items seem insignificant in themselves, but each contributes to bringing the lunchroom out of the red.

In the main, keeping inventories short and rolling; constant supervision of labor; careful planning of menus which please the children; reducing waste by turning all usable portions into something which is palatable and nutritious; buying by standard and grade; keeping accurate records of all purchases and receipts together with any activities in which the lunchroom engages; analyzing the working jobs to see where time and effort may be cut — all contribute to the balanced budget.

Food Prejudices and Habits

The volume of trade frequently falls into a fairly stable pattern, varying slightly as to days of the week and season of the year. Different methods are used to calculate the probable numbers of dinners. Some schools take a daily count, others sell weekly or monthly tickets below the total charge for individual meals. These are punched as used. Any device which gives a fair approximation of the amount of preparation necessary, helps in keeping within the budget.

There are many practices in school administration which thoughtlessly contribute to the unbalanced budget. The first, insufficient planning of background policies, has been mentioned. Frequently, the real values of the lunchroom are overlooked. Many a school lunch manager who balances her budget and builds up a small surplus sees the latter gobbled up to pay the expenses of a deficit department or to buy band instruments or a stage curtain.

Another discouraging practice is that of dismissing school without giving sufficient warning that a portion or all of the children will be out for the lunch hour. It seems difficult for administrators to remember that the costs of lunches are set far in advance of 10:30 each morning.

A common practice is catering to the administrators and teachers without counting costs of special services or foods given. How often the cook must bake cinnamon rolls or chicken pie, which are denied the children, to please the principal or some other adult! Another practice is serving special functions or entertaining celebrities for a nominal charge below the actual cost of preparation. Special demands are frequently made by adults: "I am on a diet. Stick this potato in the oven at 11:30." or "Make my coffee of Sanka." When managers get together demands of this sort loom up as one of their biggest problems. The adults who bring their tea bags and lunches, yet pass through the lines using dishes, trays, cream, sugar, salt, pepper, and napkins, demanding refill after refill of boiling water for their tea, add significantly to yearly costs.

Food habits and prejudices are personal. It is as impossible to serve menus acceptable to all at all times as it is for a baseball star to make a home run every time he comes to bat. Yet adults in a

(Concluded on page 86)

What Should a School Board Member Know About INSTRUCTIONAL AIDS?

*Herman O. Hovde, A.M.**

Aids to instruction, of some sort or other, have always been used in the schools. Adults will remember from their own school days the blackboard, the globe, maps, and pictures. Now there are available for use in schools opaque projectors, overhead projectors, slide projectors, moving picture machines, phonographs, radios, sound recorders, stereographs, charts, posters, etc. Which of these are essential, and helpful? Are any of them "fads and frills"?

This article will attempt to answer only a few questions of the many that can be asked about instructional aids. Only the most important principles involved will be presented to aid the busy board member in his quest for information. The emphasis will be on practical suggestions.

The new teaching methods have made entirely new types of classroom equipment essential for success.

Learning By Experience

One of the first principles to be remembered in connection with any instructional aid is that learning takes place by experience. The first things an infant learns about are those immediately around him that he can feel, hear, smell, see, and touch. Gradually words are learned which stand for these things that have been experienced. The vocabulary of a six-year-old of average experience consists of about two thousand words learned by direct methods. Then the child goes to school and is taught to read and write. The child knows the sounds and learns the letters associated with the sounds. The meaning of the words to the child, however, depends on how the teacher has connected the new combination of letters with the pupil's previous knowledge. For effective learning, objects and pictures are provided for the beginner, or the pupil will be merely pronouncing words without knowledge of the real meaning.

The use of words without knowledge of their meaning is verbalism. It is a chief problem in present-day education and has been evident for a long time. Instructional aids are used to make each word taught have an exact meaning based on as many sense experiences as possible. To illustrate from high school chemistry: A student prepares hydrogen, perhaps spills a bottle or two, has another explode, and finally achieves a successful test of the noncombustibility of the materials in hydrogen. This student has facts at his command that make "hydrogen" mean definite things to him. Another example from the elementary school: The boy or girl from the farm has helped drive cows home from pasture, feed them, drive them into their places for milking, and had a hand in the milking process. To this pupil the word "cow" has a meaning that cannot be given to city children. One who has merely read about a thing has a limited understanding of it.

Projectors

There has been much investigation to show the value of the various instructional aids in use today. Hoban[1] reports that school movies, according to research, show a great increase in the amount of learning, both immediately and after a lapse of three months, the increase being greater in the latter case. Yet Harold Benjamin, in introducing a recent text by McKown and Roberts[2] on audio-visual aids, points out that the schools have allowed themselves to follow old practices which are contrasted freely in the daily observation students make of school procedures. The up-to-date movie and radio presentations make some of the dull textbook presentation and daily automatic procedure seem incredibly dull. McKown and Roberts[3] state that the complexity of modern civilization demands use of all the senses to give each student the maximum knowledge of our time. Mere definitions of words and ideas have little meaning for the student. Every effort must be made to show the student, by the use of every sense he possesses, as much as possible of the new item to be learned that has effective meaning. This is the function of the instructional aid.

Pictures, both in color and black and white, can be obtained easily from magazines and other publications, and provide a supply of interesting materials which are very effective

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[1]Hoban, C. F., *Visualizing the Curriculum* (New York, The Dryden Press, 1937).

[2]McKown, H. C., and Roberts, A. B., *Audio Visual Aids to Instruction* (New York, McGraw Hill Co., 1949).

[3]McKown, H. C., and Roberts, A. B., *ibid.*

teaching aids. These pictures can be shown to the class to best advantage by means of the opaque projector. The opaque projector has mirrors and a lens system which directs reflected light to a screen where an enlarged image is formed.

The overhead opaque projector has a slightly different arrangement consisting of a lighted stage with a lens system and reflecting mirror above it. The advantage of this machine is that it permits the instructor to face the class.

Other means of projecting pictures are the slide and slide film projectors. Two sizes of slides are in common use, the 3¼ by 4 inch which is the older type, and the 2 by 2 inch which came into use with the appearance of 35 millimeter color film and is easily made into the smaller slides.

Newer developments are the simple film strip and the film strip which is accompanied by a record for sound. The strip and record combination is of recent origin and has many possibilities, but it requires a little more training because the two must be co-ordinated. This is not a serious disadvantage, since the strip can be used without the record. Film strips are small in size for storage and convenient to use, but they present the material in a definite order which is not readily changed.

The cost of the equipment mentioned above varies. The slide film projector is the least expensive, selling for about $30 to $140, depending on quality and refinements. Slide projectors sell at about the same price. Opaque projectors are more expensive: a machine which will project a picture 8½ by 11 inches in size costs about $250. An overhead projector designed to project 11 by 11-inch material costs about $200. The opaque projector can be used for a greater number of purposes, since more pictures are available for it. Teachers can more easily prepare materials for opaque projection than for any of the other machines.

The use of motion pictures in schools has increased greatly in recent years. One of the reasons for this growth is their success as a teaching aid in the armed forces, which many teachers experienced and which has been given wide publicity. In 1947 H. A. Kenny[1] reported that only twenty per cent of our schools were using motion pictures, indicating that the schools were far behind the armed services in this regard. In 1949 the U. S. Office of Education[2] reported that 16mm. sound projectors were found in public high schools as summarized in the accompanying table.

One air force school during the war had 16 motion picture projectors for a group of six hundred students. This is perhaps more than necessary, but nevertheless there is much room for improvement in the schools. It's worth noting that Kenny reported that ninth-grade science pupils who had been taught with the aid of movies tested forty per cent higher in knowledge retained after three months than a similar group of students without the pictures. The need for films is evident from research and personal experience.

[1] Kenny, H. A., "Going to School With the Movies," *American Mercury*, V. 65, Jan., 1947.

[2] "Movie Projectors in Public High Schools," Seerley Reel, Pamphlet 109, 1950, U. S. Office of Education, Washington 25, D. C.

Motion pictures, film strips, and other projection materials are as important as textbooks.

Type of School	*High Schools*	*Schools With Projectors*	
		Number	*Per Cent*
Rural schools (communities less than 2500 population)	17,388	13,855	80
Town schools (communities 2500–29,999 population)	4,476	4,211	94
City schools (communities 30,000 or more population)	2,450	2,405	98
Total	24,314	20,471	84
Size of School			
Small schools (fewer than 100 students)	9,565	6,545	68
Medium-sized schools (100–499 students)	10,960	10,157	93
Large schools (500 or more students)	3,789	3,769	99
Total	24,314	20,471	84

Cost of Movie Equipment

Motion picture equipment is more expensive than other instructional aids. Sound projectors vary in cost from lightweight machines priced near $300 to heavy duty units which sell for about $500 and above.

Motion picture films can be obtained from numerous agencies by purchase and rental, and there are many more which can be had from commercial sources for the cost of transportation. If pictures are to be used three times a year or less, they should be rented; however, if they are used oftener, it may be better to purchase them. A film that belongs to the school district is on hand when it is needed most; it can be used as long as it is of value, and it can be utilized for other than class purposes. A rented film, on the other hand, must be returned and only major use can be made of it without excessive rental cost. Owning film, of course, involves the problems of storing, filing, and maintenance. While these considerations do not present difficulties of very large importance, they do require attention.

School board members can promote the use of motion pictures in the schools first by defending teachers who advocate up-to-date methods and instructional aids against those persons who wish to have only what has been in the schools in the past. Second, they must see to it that the school budget includes sufficient funds for instructional aids, and third, that adequate equipment and space are provided.

Up to the present time, little use has been made of audio, or sound, aids. It is true that phonographs will be found in the music department, but radio has not been employed adequately. The reason for the latter problem is obtaining programs at the time desired and the fact that numerous offerings are of no educational value. Yet there is a vast amount of good material on the air and more certainly will be provided when the schools are ready to use it. The same is true of television. At present there are excellent news programs which are of great value to social studies classes. The advantages of television have been looked into seriously by educators. For school use it has some difficulties in common with radio and others peculiar to itself. Schoolmen will certainly be giving its obvious merits further attention.

Sound recording equipment makes it possible to present valuable radio programs that are broadcast outside of class hours. These

recordings can be used whenever and as often as necessary. Professionally made transcriptions of the best quality from technical and educational standpoints are also available.

Recorders Are Versatile

Recorders, moreover, are essential aids for music and speech departments. Even language departments can make profitable use of them.

Tape and wire recorder reels vary in cost from about $2.50 to the more expensive, double track plastic tape type which plays an hour or more and sells for about $7.50. The latter are expensive for permanent recording but relatively inexpensive for temporary recording because they can be used over. For permanent records the embossing type of machine provides a three- to five-minute recording for about fifteen cents, but these have a short life for replaying.

Wire recorders are satisfactory for voice recording but they are not as good as tape recorders for music. Tests should be made for quality before buying a wire recorder for recording music. The tape recorder is less difficult to handle if the tape breaks and also makes editing easier. A new development in tape recorders is an instrument adapted to stenographic work which sells for about $95. This machine would be very valuable for general purposes in a small school, since it can be used for dictation, voice training, or recording music.

The Committee on Visual Aids of the American Council on Education[6] have established the following minimum equipment for a beginning instructional aids program: one 16mm. sound motion picture projector, one sound recorder or/and a two-speed record player, and one film strip projector for each 200 students. One set of 35 sterescopes for each 400 students, and for each school one opaque projector. Each classroom should be equipped with a screen if the room can be darkened adequately, and each room also should have a table radio.

Another standard for a beginning program of instructional aids is the establishment of a budget of 50 cents per pupil. Many schools provide twice that amount for a program regularly but the initial amount can be increased as needed. This amount includes salaries of personnel who take care of and handle the equipment, but it does not provide for the time spent by the teachers in using the aids in class.

In-Service Training

Many boards may hesitate to provide funds for new instructional aids on the basis that present equipment is not being adequately used. This is a problem that requires attention. It will be found however that many teachers are skilled in the use of aids, that they are very willing to improve their teaching by learning to use other equipment and methods, and that those teachers who have been slow to adopt new ways of teaching

Film Collection of a City School System.

can be brought to improve their work. Instruction and observation of the good use of teaching aids in the hands of their fellow teachers will do much to change their attitude. The instruction should be in the form of in-service training with salary credit on the same basis as other training. No one hiring a mechanic would permit him to work with tools of three decades ago, and teachers must be equipped with adequate implements also. Instruction should cover both the uses and operation of the machines. Many teachers feel that they have no ability to operate equipment, but this attitude can be overcome easily by training. The ultimate advantage to the employing district and to the pupils is so great that no school system can dispense with these measures.

Other problems regarding instructional aids are the demand for the equipment and attention to such details as requisitioning and transporting it. These problems are primarily administrative. They require serious consideration for many a teacher will soon stop using a machine if it must be carried upstairs every time he or she needs it or if much red tape has to be untangled before it is available.

Needless to say, equipment should be maintained in perfect operating condition at all times. If a district is not able to employ skilled maintenance personnel, it should contract with a competent firm for maintenance service. No teacher should be required to make repairs or replacements before putting a teaching aid into use, although it is true that emergencies will occur. Each school should have at least one teacher who is trained to replace simple parts such as lamps and belts. Also, students in the upper grades of the elementary school and students in the secondary schools can be trained for this work as well as operation of the machines.

Equipping Rooms for Aids

The question arises as to whether the classroom or a special room is better suited for the use of instructional aids. The answer is probably in favor of the former. The use of this equipment in the regular environment of the pupils gives an atmosphere of "business as usual," reduces disciplinary difficulties, and saves time. If it is not possible to darken a classroom for projection purposes it is better to move the pupils to a room that is properly equipped, because streaks of light, flapping curtains and makeshift power cords interfere with teaching as well as learning. A properly prepared room has an outlet and switch near the machine, lights in reach of the operator, and shades which darken the room without cutting off ventilation.

If equipment has to be moved into each classroom, provisions should be made accordingly. The equipment should be light in weight or it should be made portable if it is of the heavier type. Wheeled stands should be used to move heavy machines or else they should be transported by a person who is physically able to carry them and set them up for use without disturbing the class. Many teachers are not able to carry these machines, especially up and down stairs and they should not be expected to assume that burden in order to have the advantage of instructional aids. Industry provides conveniently arranged equipment for its workers, and teachers rate at least equal consideration, for their time and energy should be conserved for the most important part of their work which is instruction. Making the use of instructional aids easy will assure maximum utilization.

One person should be responsible for scheduling use of equipment, attending to minor maintenance and ordering major repair. This person should keep a record which shows the location of each piece of equipment at all times as well as a reservation schedule. This arrangement will simplify procurement, save time that might otherwise be required to hunt down equipment, and insure the return of all items taken out.

There should be adequate filing space for materials that can be used over as well as storage space for parts and machines. There must be at least one spare lamp for each machine and spare minor parts such as belts for motion picture projectors. Quick replacement is thus possible and interference with the teaching program is reduced to a minimum. It is further recommended that the teachers be provided with working space and equipment to prepare teaching aids of their own making. Many teachers have skill and training for this type of work and if they are properly equipped the instructional aids program will benefit immensely.

The use of instructional aids is increasing in schools over the entire country, but the possibilities which they offer have by no means been exhausted. Alert school boards can do much to expand the opportunities offered to children in their schools by providing a well-equipped department of instructional aids.

[6]McKown, H. C., and Roberts, A. B., *op. cit.*

Word From Washington

The Outlook for Television Education Brightens

Elaine Exton

For the first time in the history of television the Federal Communications Commission (FCC) has announced allocation plans that would specifically set aside TV channels for educational telecasting. In a proposal made public late in March the Commission tentatively reserves 209 local television assignments in the United States and its Territories exclusively for noncommercial use — 127 in the ultra high frequency (UHF) bands, now used only for experimental purposes, and 82 in the very high frequency (VHF) portion of the television spectrum where all the TV stations now in operation are located.

FCC Recognizes Needs of Education

In the findings accompanying this proposal the Commission held the need for noncommercial educational television stations "has been amply demonstrated" explaining the conclusion was based, in general, "upon the important contributions they can make in educating the people both in school, at all levels, and also the adult public." Further justification was found in "the high quality type of programming which would be available on such stations — programming of an entirely different character from that available on most commercial stations."

The fact that educational institutions of necessity proceed more slowly in applying for broadcast stations than commercial stations was cited by the agency as grounds for making specific reservations for noncommercial educational television since "if there is no reservation, the available channels are all assigned to commercial interests long before the educational institutions are ready to apply for them."

Remarking that "obviously the period of time during which such reservation should exist is very important," the report declares that this period "must be long enough to give educational institutions a reasonable opportunity to do the preparatory work that is necessary to get authorizations for stations (but) must not be so long that frequencies remain unused for excessively long periods of time." "The Commission will survey the general situation from time to time to insure that these objectives are not lost sight of," the study comments.

FCC Chairman Wayne Coy, in a separate statement, makes the further point that "the reservation of channels for educational stations in no way relieves the licensees of commercial television stations of any responsibility to render a well-rounded program service, including a reasonable proportion of time devoted to programs that meet the educational needs of the community."

Method of Reserving Frequencies

The Federal Communications Commission has tentatively designated a channel for noncommercial educational television in all communities where it has allocated three or more TV assignments, irrespective of whether these lie in the VHF or UHF bands.

Where a community is given fewer assignments, no such reservation has been proposed — except in the 46 locations deemed to be "primarily educational centers." In these places, which include such college towns as, San Diego, Calif., Boulder, Colo., New London, Conn., Gainesville, Fla., Atlanta, Ga., South Bend, Ind., Lawrence, Kans., Louisville, Ky., Boston, Mass., Ann Arbor, Mich., Columbia, Mo., Ithaca, N. Y., Chapel Hill, N. C., Norman, Okla., Corvallis, Ore., and State College, Pa., a VHF channel will be reserved, if possible.

With the exception just cited, the FCC plan calls for saving an ultra-high frequency channel for educational telecasting in communities granted fewer than three VHF allocations, while those receiving three or more assignments in the very high frequency band would be allotted a VHF channel for noncommercial educational TV operation, except in cases where all VHF outlets have already been taken up so that the set-aside must be a UHF frequency.

Position of Educational Organizations

The number of television channels tentatively allocated for educational use is approximately half of the number that educational spokesmen say would be required to give a complete educational TV service to the nation according to the Joint Committee on Educational Television.

This group was formed to present to the Federal Communications Commission the claims of education for an adequate share of the frequencies in the television spectrum. It comprises seven national organizations, namely, the American Council on Education, Association for Education by Radio, Association of Land Grant Colleges and Universities, National Association of Educational Broadcasters, National Association of State Universities, National Council of Chief State School Officers, and National Education Association.

In his presentation to the FCC during the recent hearings on this question, the Joint Committee's Counsel, Brigadier-General Telford Taylor, a New York attorney and former U. S. Chief Counsel at the Nuremberg War Crime Trials, asked the Commission to:

1. Make provision for at least one VHF noncommercial educational television station in 168 metropolitan areas and 46 major educational centers ("comparatively small communities in which educational institutions constitute the principal enterprise").

2. Rule that in cities where all the available VHF channels have previously been assigned and are now occupied by commercial stations already on the air the licensees be required to devote a specified portion of their broadcast time to noncommercial educational programs or that appropriate alternatives be adopted in individual cases so as to insure facilities for noncommercial educational telecasting in these urban locations.

3. Reserve approximately 20 per cent of the television channels in the UHF band for educational use.

In all 71 witnesses supported the case for providing ample television frequencies for education during the FCC hearings November 27 to December 8, 1950, and January 22 to 30, 1951.

To help assure that education will obtain its proportionate share of TV facilities, Representative Emanuel Celler, Democrat of New York and Chairman of the House Judiciary Committee, recently introduced a bill into Congress — H.R. 3543 — "to amend the Communications Act of 1934 so as to require that at least 25 per cent of the regular program operating schedule of each commercial television station shall be devoted to noncommercial education programs." This has been referred to the House Committee on Interstate and Foreign Commerce which Representative Robert Crosser, Democrat of Cleveland, Ohio, heads.

Some Underlying Issues

Urging that "education must not be given the giblets of the television turkey," FCC Commissioner Frieda B. Hennock has called the reservation program proposed by the Commission "inadequate and ineffective in many vital respects and not a sufficient rec-

ognition of the need and merit of educational television." She warns that "provision for educational television and adequate recognition of its needs must be made *now* or never since the Commission now proposes to allocate and open up for licensing all of the remaining frequencies that are available for telecasting and, as far as we know, will ever become available."

Miss Hennock who has been carrying on a spirited campaign to have 25 per cent of the remaining television frequencies made available for the exclusive use of the nation's educational institutions and organizations has expressed her intention of continuing to work for this goal.

Her dissatisfaction with the proposed arrangements stems in part from the fact that "the Commission, in reserving approximately 10 per cent of the total assignments in the 48 states,[1] has failed to provide facilities for education in a large number of cities of substantial size. Thus, there is no frequency reserved in more than one-fourth of the 168 standard metropolitan areas in the United States," she points out, "although these cities range from Pittsfield, Mass., with a population of 65,000 to Youngstown, Ohio, with a population of 525,000.

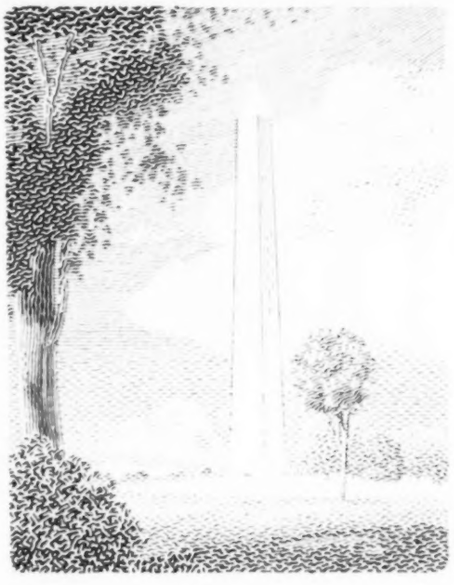
"The absence of a reservation is particularly serious in those cities where important colleges and universities and successful educational broadcasters are located," Miss Hennock holds, remarking that "these include Lansing, Mich. (the home of Michigan State College), Lexington, Ky. (the home of the University of Kentucky), Springfield, Mass. (the home of Smith, Mt. Holyoke, and the University of Massachusetts), and Stillwater, Okla. (the home of Oklahoma Agricultural and Mechanical College, an institution which has an outstanding broadcast record).

"The Commission's proposal in many of our largest cities, such as New York, Los Angeles, Philadelphia, Washington, D. C., Detroit, Cleveland, and others, confines the reservation for education to the ultra-high frequency (UHF) band which makes no provision for educational broadcasting in the very high frequency (VHF) band where all telecasting is now being done," she adds, pointing out that "to restrict education in these cities solely to an outlet in UHF is to place it at a fundamental disadvantage and cut sharply into its potential effectiveness," especially since "up to now UHF operations have been completely experimental and there is no assurance as to when UHF equipment will be available and UHF stations in operation." Moreover, millions of VHF receivers are now in use in these urban areas that could not pick up UHF telecasts unless the equipment is converted.

[1]The Commission's earlier proposals allow for about 400 commercial TV stations in approximately 140 "market areas." However, only 107 television stations are now in operation due to the "freeze" on new construction which was imposed by the Commission in September, 1948, to enable it to give further study to basic engineering data covering such problems as interference and spacing between stations. This number would eventually be increased to about 2000 stations in some 1200 American communities under the FCC's expanded allocation plan.

Calling attention to a major issue in this field the report of the Federal Communications Commission notes that "objection was made to the idea of reservation because as stated by some witnesses, the experience of educational institutions in the use of AM and FM radio does not furnish sufficient assurance that the educational institutions would make use of the television channels."

In separate statements FCC Chairman Wayne Coy maintains "there is a startling lack of data concerning the willingness and readiness of educational institutions — their boards of trustees, administrative officials and faculties — to use television as an educational tool," while FCC Commissioner Edward M. Webster comments "in my opinion such a reservation is warranted only if a specific showing is made that there is reasonable probability that if an educational channel is reserved it will be utilized in the reasonably near future."



Next Steps

It is up to the educators to meet this challenge and make clear their intentions with respect to the facilities contemplated for their use as well as to signify whether and why they approve or disapprove of the FCC proposals. They will have opportunity to do this through filing with the Commission supporting evidence, which in some instances must be accompanied by engineering statements on a community-to-community basis, by April 23, objections or counterproposals by May 8, and through appearing in person at the public hearings to be resumed in Washington on May 23, 1951.

The Joint Committee on Educational Television will submit supporting testimony for its original petition when the hearings reopen and will participate in a city-by-city presentation. It has established headquarters in the new building of the American Council on Education at 1785 Massachusetts Avenue, N.W., Washington 6, D. C., and is developing plans for a continuing service to school systems and educational institutions interested in securing TV channels or in using or producing educational television programs. A series of studies bearing on television problems will be conducted to aid in this work.

Television in Education

Since experiments conducted by station WBKB and the Radio Council of the Chicago Public Schools in 1945 brought students of Chicago's Lake View High School the distinction of being the first to see educational telecasts broadcast from a studio direct to a classroom there has been a growing interest among educators in the use of television as a supplementary aid to classroom teaching and a great deal of experimentation has taken place, notably in the Baltimore, Detroit, Philadelphia, and St. Louis schools.

Already 19 local public school systems, 9 colleges and universities, four medical schools and two public libraries are producing their own shows for telecasting over commercial TV stations. Twelve colleges have applied for licenses to operate their own TV facilities. Some 50 others have expressed interest in establishing such stations.

At the State College of Iowa in Ames WOI-TV has been in operation since February of last year, the institution having been granted a license by the Federal Communications Commission prior to the "freeze" of September, 1948. Since no TV stations have as yet been erected in Des Moines and WOI-TV is currently providing the only television service in the area, it is functioning at present on a commercial basis. Under the reservation plan proposed by the Commission, however, all educational stations are to be strictly noncommercial in character and such an arrangement would not be possible then on a channel reserved exclusively for educational use.

School officials seeking to realize the potentialities of television as an instructional medium may find these objectives adopted by the Philadelphia Public Schools of interest.

1. To produce telecasts which would provide materials, personalities, and skills that otherwise would be unavailable to the classroom.

2. To feature unusual projects or techniques underway in a few schools, in order to encourage other teachers and classes to undertake similar projects.

3. To encourage the use of television in the classroom when history-making events are televised such as the signing of the Atlantic Pact and the inauguration of the President.

In so far as schools are concerned television can bring illustrative lessons into the classroom which greatly enrich learning opportunities. Programming can be built around not only such regular subjects in the curriculum as English, history, geography, mathematics, art, and music but also around such so-called new ones as health, safety, vocational skills, international understanding, and student advice and career guidance. Moreover, the school can broaden its services to the public by telecasting an adult education program

(Concluded on page 89)

The Test Plan of —

Military Deferment of College Students

Edward A. Fitzpatrick*

It is a long cry from the origin of the Selective Service System in 1917 to the amazing proposal of the recent President's Executive Order born in the Selective Service System as a result of pressure of the combined educational lobbies in Washington and perhaps from the country.

Men will be able to escape their military obligation if they can pass successfully certain "multiple choice tests." One would be able to say little about the capacity or general achievement or special accomplishments of such tests. Of such a test all that one can say is that the student passed such a test on such a day. This program is primarily in the interest of the college rather than of the student, at the sacrificial offering of other students, working boys and others who have not been able to take advantage of the educational opportunities of this society or have other than the specific academic requirements for school success. This program together with the 30 per cent approximately of 4F's, some dependency and occupational deferments, and the conscientious objectors, ought to take care of the colleges. But the imperative and primary problem before the American people is to save the nation.

Basis of the Conscription Plan

In 1917 compulsory military training and service was an experiment about which many were frankly skeptical. We were told that the American people would never accept it for it violated the basic concepts of a free America. The fact we now know is, it was a tremendous success. The fears inspired by the almost total failure of the Civil War effort proved groundless. An army officer involved in the administration of the Civil War drafts reviewed the experience and formulated its lessons for the future. Certainly one of the most important was the suggestion relating to evasion of military service, and the fairness of the system in determining the order in which individual citizens would fulfill the obligation of military service placed on all within the military age.

Public polls emphasized this basic quality of fairness in the 1917 system and its administration. Every effort was made to emphasize (1) the universality of the military obligation of male citizens within the age group and (2) its personal character. The three lessons from the Civil War drafts were repeated to emphasize this inescapable personal character of the military obligation:

There must be no bounties to induce persons to enter the military service.

There must be no authority to provide or to accept substitutes for persons who are drafted or liable to be drafted.

There must be no purchases of exemption or release from military service.

Supplementing these provisions which were included in the 1917 law were provisions for (1) civilian administration; (2) local administration by neighbors; (3) everyone placed in Class I unless deferred in the national interest; (4) a national lottery to determine the order of liability to examination and selection of the "mass of men whose obligation before the law are all equal." I summarized the ideas in a paragraph in a book (1940) on *Conscription and America.*

At the basis of this system are the great political traditions that aim to guarantee in our ordinary social life the principles of justice and fairness; equality before the law, a full opportunity to be heard, one law for all kinds of people, no favoritism, no extraneous influence, a right of appeal to the President himself, local administration of affairs, the protection of the interests of the individuals by government officers (government appeal agents). These elements go back to our Anglo-Saxon and Norman beginnings and embody the best elements of our contemporary public opinion.

It was this spirit of universal personal obligation in which everyone upon whom the obligation rested took their place without discrimination, those with much education and those with little, working boys and students in turn, with a pitiless publicity and a fair administration by neighbors. But even then the pressures were put on to save the college students, or should we say the colleges. In the first report of the Provost Marshal General, General Enoch Crowder has this to say after noting that the claims for specific technical training useful to the war effort had prevailed:

In other fields of education different considerations are controlling. If a nation is to make any sacrificial adjustment it is here. The value of an educated youth is not to be underestimated, but war is an emergent condition which by the very nature of the problem cannot last forever. While due provision must be made for the future, the obligation of military service is not lightly to be passed over. It is not difficult to find that the relations of a man to the war industries of a nation are sufficient to defer his call to military service and in his place to send another man to stern and vicarious sacrifice; but it is much more difficult to reach the conclusion that, either the interests of the nation or the interests of the favored man, are sufficient to justify sending forth in the place of a college student a less fortunate youth at the imminent and great peril of life — not because he is better fitted to defend his country (for admittedly such is not the case), but because the national life has vouchsafed him fewer opportunities. Yet that idea is rampant in the nation. It is unfair and unjustly partial. Human lives and destinies are at stake. There is too great a disposition to weaken on this ground; and the sooner the nation comes to an exact realization of the issues involved the sooner will the powerful disposition of high but single-minded educators be opposed in this regard.

General Crowder has previously noted that all these special pleaders in their special field were unanswerable, but he adds:

Against such blandishments this office must stand forth without compromise. Herein it must be supported by the manhood and the mature and unbiased thought of the nation, or its plan of selection must fail. And with its failure the nation must confess inadequacy in the virility of the fighting nations of the world.

Conscription in World War II

At the beginning of World War II there was a great meeting in Baltimore in which all the colleges pledged their resources to the nation. All they wanted to know was what the nation wanted. They had a right to be impatient as the national administration had frittered away time, fumbled proposals, was uncertain from day to day, and could not or would not give clear guidance. One of the Association of Colleges put the case well: (May 8, 1941) "We wish to express to the government our determination to do everything within our power to co-operate in this time of crisis for the total defense of the nation." They added: "We welcome from the government a clarification of our country's needs." On August 28, 1942, the federal authorities got around to a clean-cut policy formulated by representatives of the War and Navy Departments, the Selective Service System, the Civil Service Commission, the War Production Board, and the War Manpower Commission under the chairmanship of Dr. Edward C. Elliot, then president of Purdue University. These are the first four paragraphs of the declaration of policy, which I personally read to the National Institute on Education and the War at American University (Washington, D. C.) the day it was publicly released:

1. All students, men and women, must be preparing themselves for active and competent participation in the war effort. This basic proposition will, of course, be accepted and understood by the institutions, by the students, and by the general public.

2. All able-bodied male students are destined for the armed forces. The responsibility for determining the specific training for such students is a function of the army and the navy.

3. For those students, men and women, who are not to serve in the armed forces there should be developed through the War Manpower

(Continued on page 83)

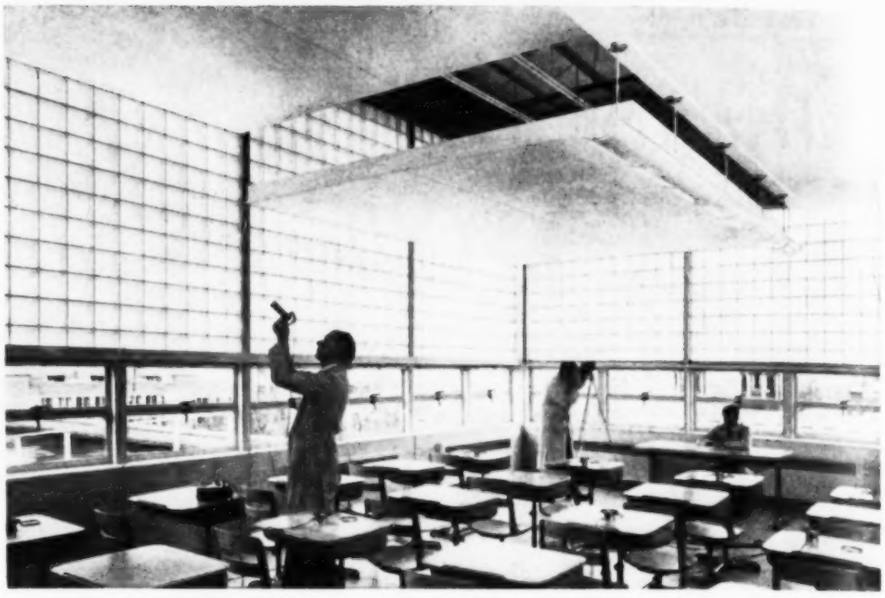
* President of Mount Mary College, Milwaukee. The writer served with distinction in the Selective Service of the U. S. Army during World Wars I and II. He is author of "Conscription and America" (Richard Publishing Co., Milwaukee, 1940) — *Editor*

School Lighting Research Completed

CONTROLLED DAYLIGHT IN CLASSROOMS

A recent demonstration and report climaxes ten years of study and research in the diffusion and control of daylighting of schoolrooms and other workrooms. The project has been in charge of Dr. R. A. Boyd, research physicist, and his associates in a special laboratory set up by the Engineering Research Institute of the University of Michigan and sponsored by the American Structural Products Co., a subsidiary of Owens-Illinois Glass Co.

The principal purpose of this special laboratory is the study of light-diffusing and light-directing glass blocks. Incidentally the study has yielded valuable data concerning window arrangement and materials, reflectivity of various colors on walls, floors, and furniture; and the transmission of daylight in general.



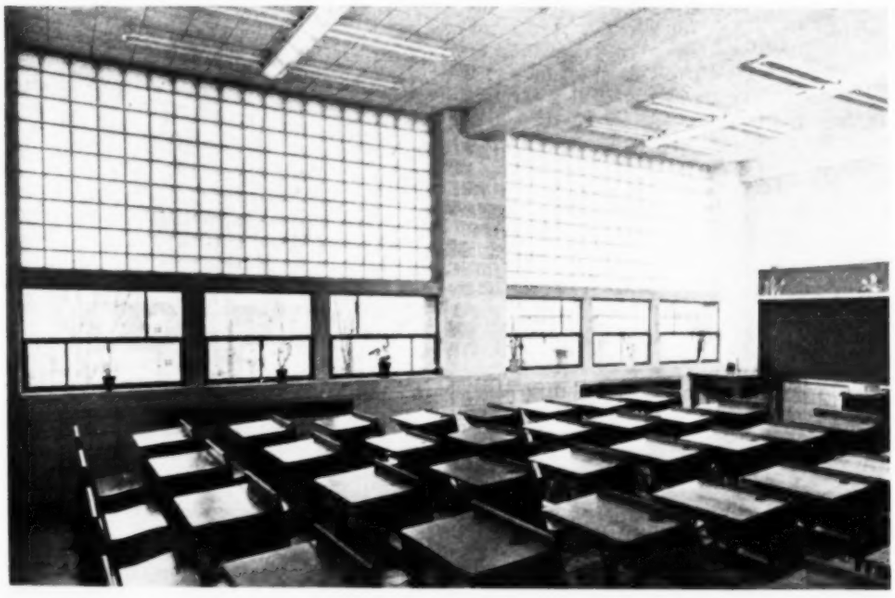
Model schoolroom in the laboratory at the University of Michigan. The ceiling may be raised or lowered in sections, and one of the "window" walls may be covered. The men are measuring the light admitted or reflected. The instruments on the desks measure the amount of light in various parts of the room.

Daylighting Problems

With ordinary clear-glass windows as the only source of daylight, there are always dark areas in the room while shades must be used to suppress the glare of direct sunlight at the windows and on desks near by.

With conventional windows, daylight is directed downward, much of it being absorbed by dark floors, furniture, and the clothing of the teachers and pupils in the rooms.

As a remedy for this condition, the Owens-Illinois Glass Company introduced its first prismatic glass block in 1937. From this beginning has been developed the present system of installing, for outside view and ventilation, a vision row of clear-glass awning or pivot-sash windows, along the outer wall, about 36 inches high, and above this, extending to the ceiling a wall of glass block. The prisms inside the hollow glass block bend the light upward and the white ceiling and the opposite wall act as reflectors to diffuse it throughout the room. Since the strong daylight is directed above eye level, the occupants of the rooms do not have to face it.



This room is typical of a modern school with controlled daylighting. Natural light is distributed evenly over work surfaces, including desks far from the windows. The clear-glass windows provide ventilation and a view; the prism-glass blocks direct sunlight to the ceiling.

The Laboratory Tests

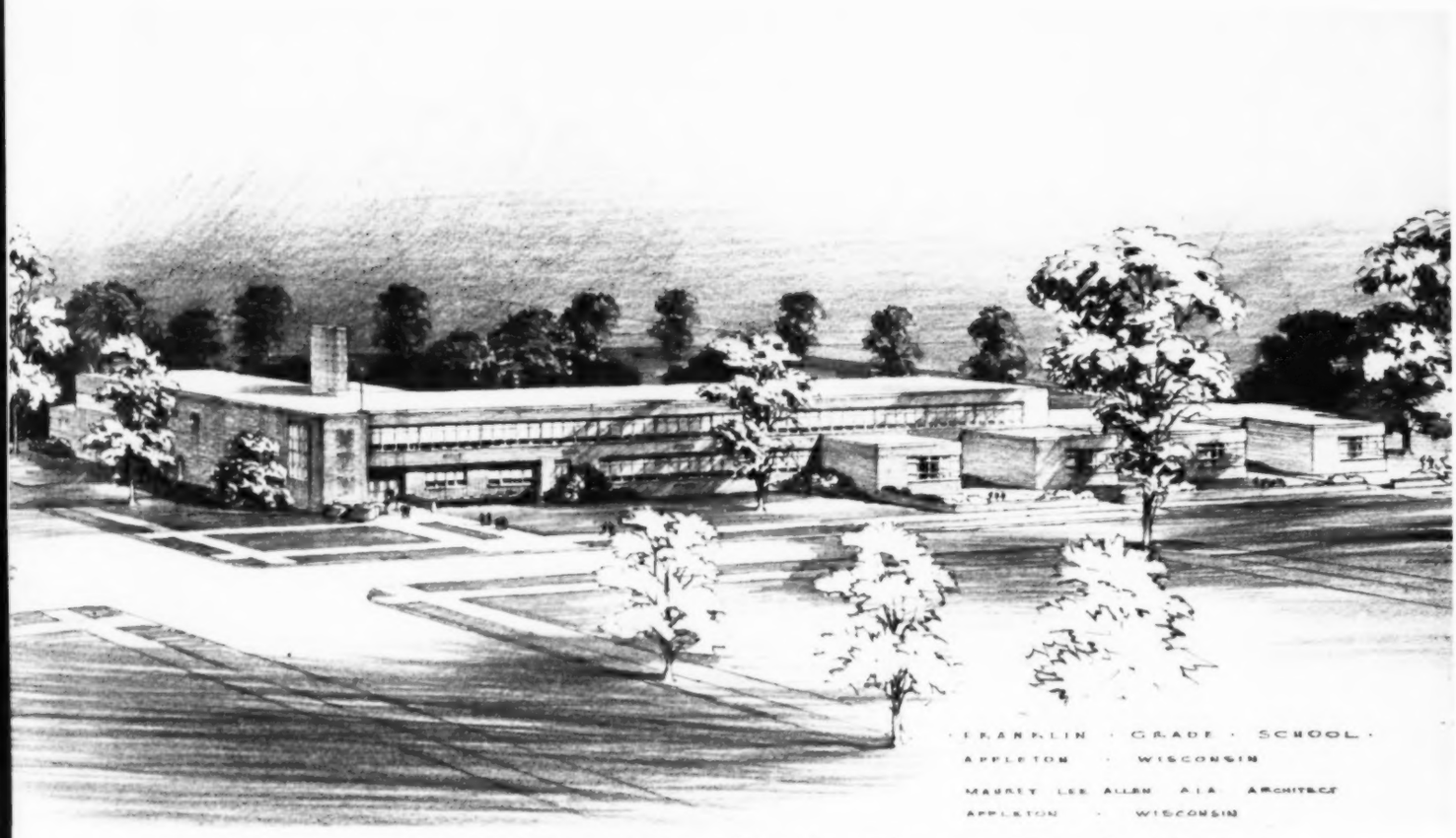
The special laboratory for a scientific study of prism glass block was installed on the roof of one of the engineering buildings at the University. A system of artificial lighting was devised to simulate exactly the behavior of sunlight under varying conditions of latitude and seasons. A model room was set up where the behavior of the prism glass block can be tested under any predetermined set of conditions. Light may be admitted on one or more sides of the room and the height of the ceiling may be varied. Special instruments were devised to measure the amount of light admitted and that reflected not only from the ceiling but also from the desks and sidewalls.

The Insulux prism glass block has been improved recently so that it not only directs the light to the ceiling, but also, by means of special "azimuth-correcting" ribs on the outside face it transmits more daylight sidewise to the inner wall of a classroom.

Glass Block Popularity

These blocks have been used in hundreds of new buildings in the United States and Canada — schools, colleges, hospitals, industrial plants, etc. At the recent convention of the American Association of School Administrators at Atlantic City there was an exhibit of 133 school building plans. Of these 79 used glass block in one form or another.

The moderate increase in cost of construction due to the glass-block installation is, according to building experts, more than offset by various economies in maintenance. They have a high insulating factor; they require little cleaning; the steel sash used below them is practically permanent; and the low clear-glass windows may be shielded on the outside so that they do not need window shades.



The main front of the Franklin Grade School, Appleton, Wisconsin, will face west — Maurey Lee Allen, A.I.A., Architect, Appleton, Wisconsin.

A WISCONSIN GRADE SCHOOL PLANNED FOR COMMUNITY SERVICE

The Franklin grade school, now under construction at Appleton, Wis., is part of a long-term plan under which the Appleton board of education is replacing its old elementary schoolhouses with modern structures suited for its instructional program and erected on adequate sites within easily reached distances to the homes of the children.

The Franklin plan was developed after a careful study of the elementary needs of the children, carried on by Supt. J. P. Mann and the supervisory and instructional staffs. Appleton is a rapidly growing industrial city, located in the heart of the Fox River Valley, and is enjoying the benefits of the growing paper and paper products industry. It also serves a large trading area of prosperous farm country.

The Plans

Some of the principles underlying the planning of the building have been stated by Superintendent Mann as follows:

1. A school building is a place where a child learns to live, and at the same time, a place where he lives to learn. Such a place is both a learning tool and an environment for the child.

2. All the senses shall be utilized in learning as far as possible. This means that the sense of touch will help in the learning of the child in all the grades. Shopwork and manipulative activities will be a part of every child's activity.

3. Space is needed in every room. Thirty square feet of space has been planned for each elementary child. Greater freedom will result for each child in each classroom.

4. Light and color have relationship. Vividness and intensity of color is desired. Furniture color is important in this setup.

5. Any tool that will enhance the speed and intensity of learning should have its place in the planning. Especially is this true for visual auditory tools. Television should be considered as a possible tool of learning for the future.

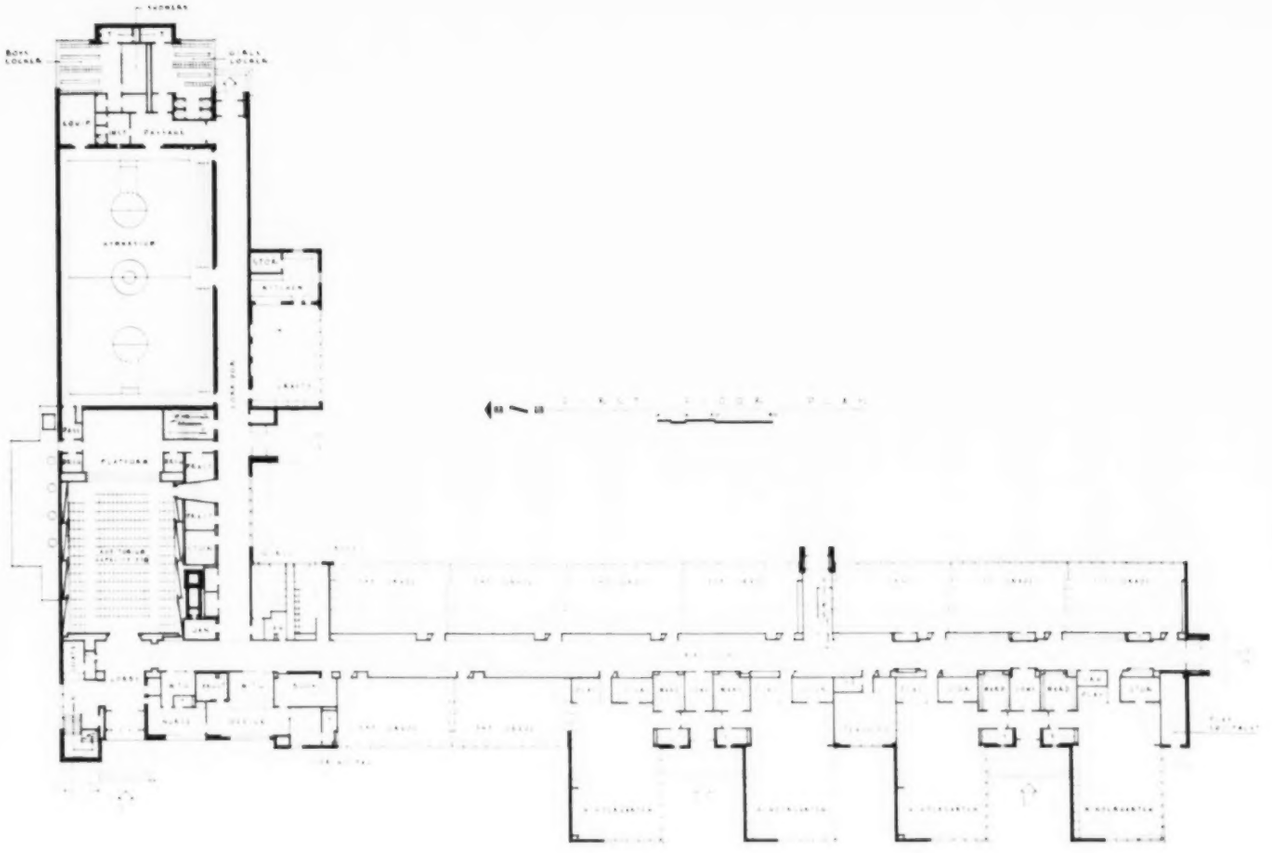
6. Health is a major object in education. Nurse's suite, corrective speech, cafeteria, and adequate gymnasium space are essential parts of the building.

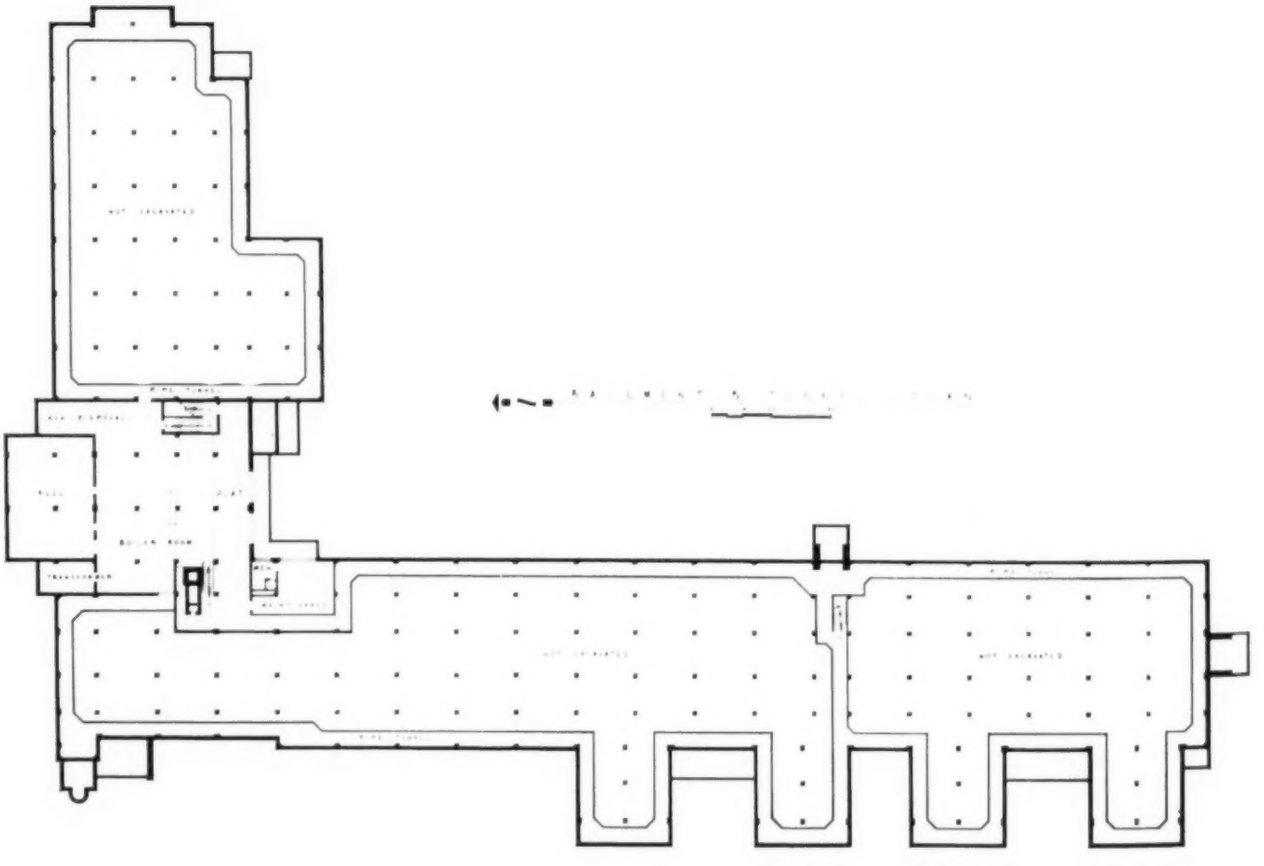
7. The building will be available for community activities. Recreation, boy and girl scouts, parent-teacher meetings have been considered as some of the community groups who will use the building.

The classrooms and other instructional areas have been generously planned for wide flexibility and adjustability in use. Dr. Mann holds that a building should be planned to be as functional in 1975 as it is in 1951, and this can be done by moderately generous planning of the floor areas, by careful provision for the travel between major departments, by the general orientation, and by the use of high grade materials and conservative engineering.

The architectural and constructional details of the Franklin School, as supplied by Architect Maurey Lee Allen, are as follows:

Footings, foundation walls: Reinforced concrete





Building frame: Steel columns, girders, and beams

First floor framing: Lightweight block fillers, concrete slab

Second floor framing: Steel joists, concrete floor slab

Roof framing: Steel joists, lightweight fill on sub-purlins and rigid insulation board and 20-year bond built-up roof

Exterior walls: Brick facing, concrete block backup

Masonry partitions: Lightweight block, glazed tile, Roman brick

Classroom partitions: Sectional cabinets, wood and cement asbestos

Exterior doors: Aluminum, wood

Interior doors: Birch, hung on metal bucks

Ceilings:
a) Classrooms, offices, corridors: acoustic-tile
b) Other spaces: plaster

Auditorium walls: Acoustic-tile, flush birch panels

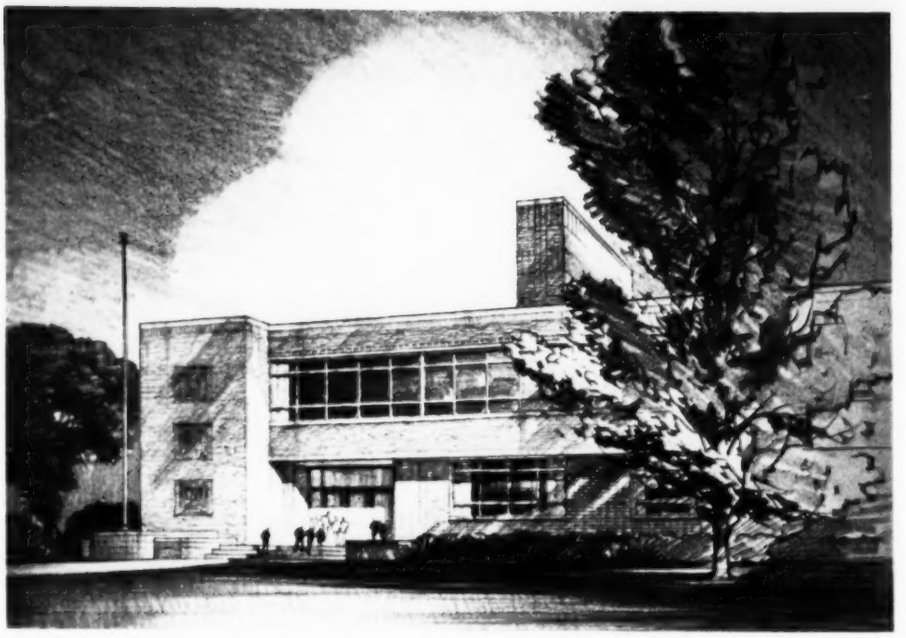
Floors:
a) Corridors, toilet rooms, showers: Terrazzo
b) Classrooms: Asphalt-tile
c) Auditorium: Cement
d) Gymnasium: Maple on sleepers

Chalkboards: Green nucite glass

Corkboards: Green

Display cases, bulletin boards: Aluminum

Windows: Intermediate projected steel or glass block



Main Entrance, Franklin Grade School, Appleton, Wisconsin.
Maurey Lee Allen, A.I.A., Architect, Appleton.

Sills, copings: Limestone

Heating-Ventilating: Two-pipe vacuum system, two stoker-fired, steel boilers, concealed and recessed radiation-unit ventilators in classrooms, ventilating units in auditorium and gymnasium, mechanical exhaust in corridors and locker-toilet rooms

Plumbing: Forced circulatory-recirculating hot water system, underground piping cast iron, above ground piping copper, thermostatic shower controls, sealed air chambers, soap dispensing system, ceiling-hung toilet partitions, vitreous china fixtures

Electrical equipment: Primary service 4000 v., 3 h.p., 3 wire, 60 cycle, secondary service 120/208 v., 4 wire through unit substation, master time and program control, coded fire alarm system, fluorescent fixtures except corridors, gymnasium, and minor spaces, cove lighting in auditorium walls and ceilings, audio-visual system, flush exterior yardlights.

Ground area: Six acres

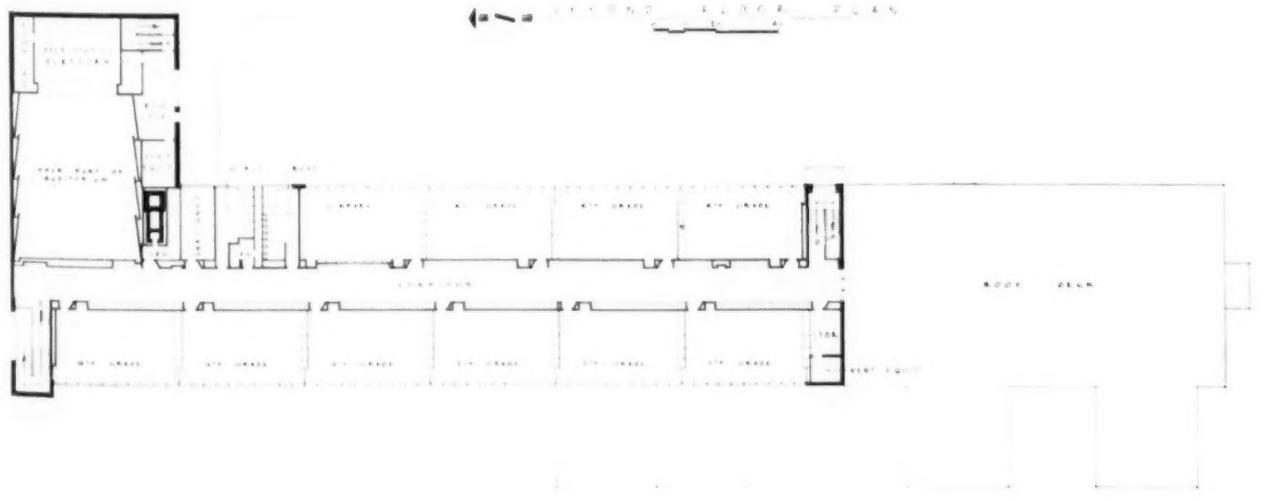
Cubage: 995,000

Contracts: General, $734,900; heating and ventilation, $90,100; plumbing, $65,680; electrical, $56,804; cost per cu. ft., 95 cents.

Square feet per pupil, classrooms: 30

Square feet per pupil, kindergartens: 50

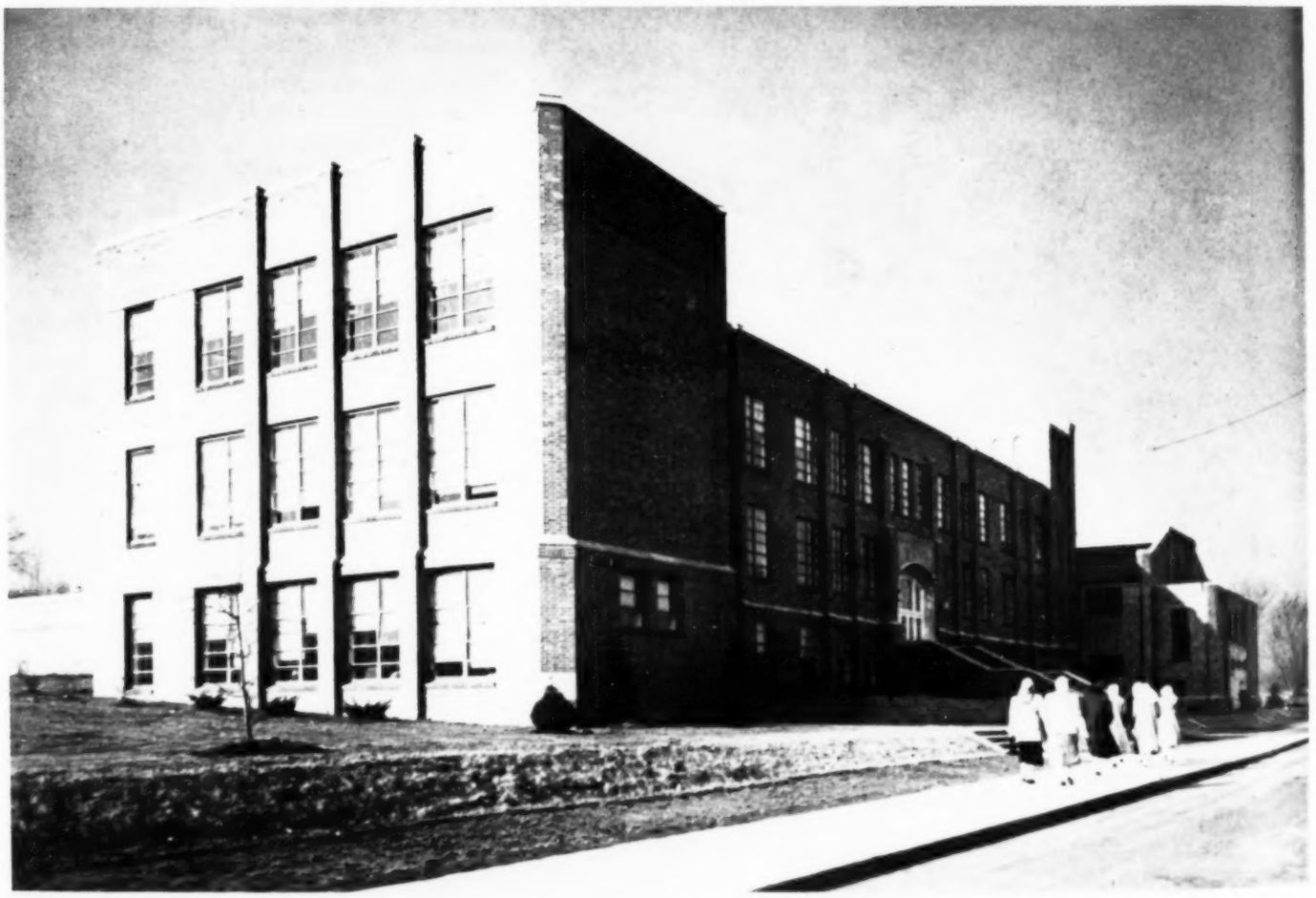
Auditorium capacity: 275

All planning on basis of modular co-ordination.

The main entrance, Ritenour High School.

Economy Marks High School

The Ritenour Senior High School

Overland, Missouri



Main Front, Ritenour High School, Ritenour Consolidated School District, St. Louis County, Missouri. — Wm. B. Ittner, Inc., Architects and Engineers, St. Louis, Missouri.

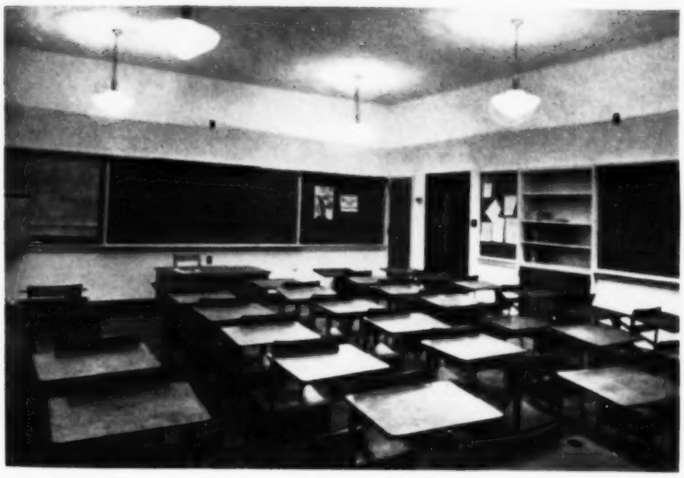
The library is the academic center of the school and provides ample space for individual reading and study.

The Kitenour High School, occupied in September, 1950, by the upper classes of the Kitenour Consolidated School District, represents the outcome of a long-range educational and building planning program. First steps toward the realization of the building were taken in the midst of the depression in 1935 when a 21-acre site embracing an old orchard was bought, to be used immediately for an athletic field and ultimately as a high school site. Available WPA labor was used to improve the athletic field and to erect a small stadium. In December, 1946, bonds were voted for the erection of a senior high school building, but a combination of circumstances prevented the letting of bids until December, 1948.

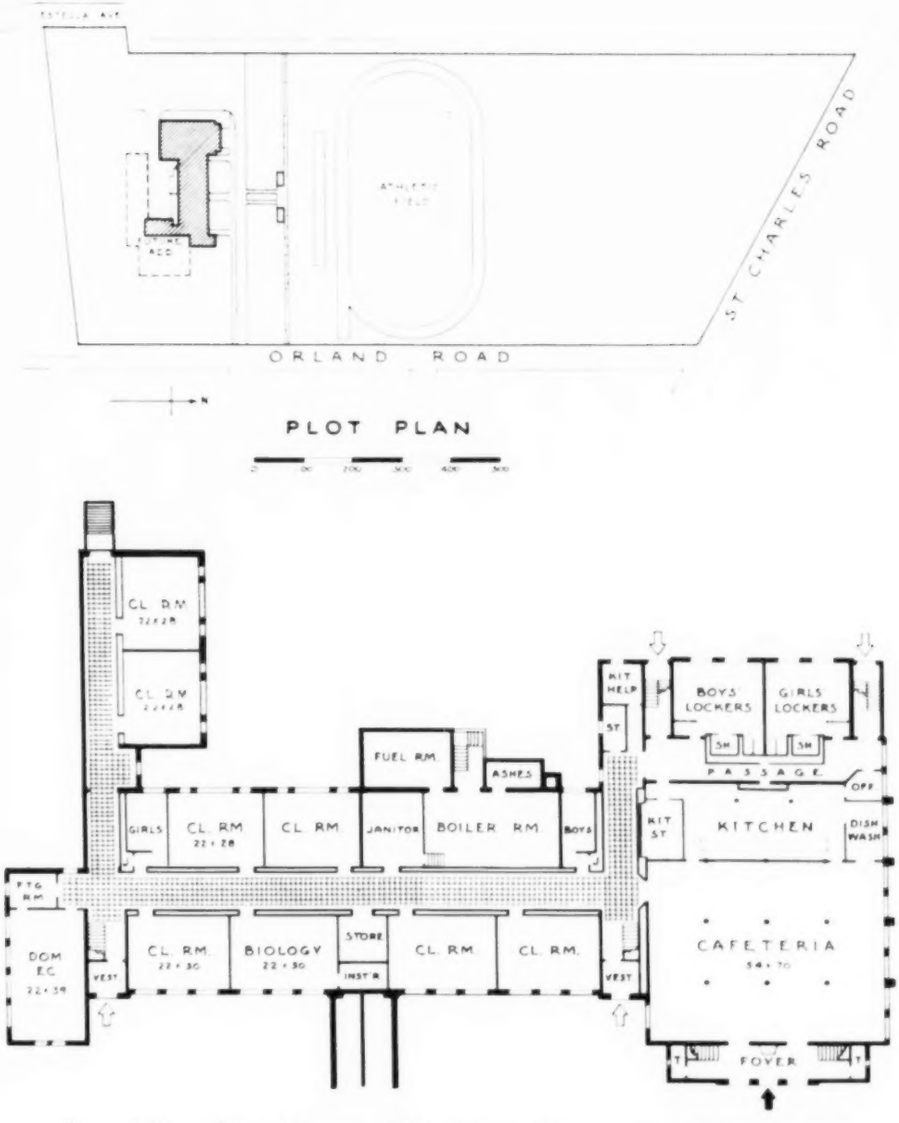
The educational planning, carried on by Supt. Arthur A. Hoech and his associates, contemplated the housing of 900 students in grades 10, 11, and 12, with provisions for a balanced program of education under the Missouri and the Northcentral standard requirements. The architects, Messrs. William B. Ittner, Inc., developed the plans along the simplest possible lines and made arrangements for additions that will increase the pupil capacity to 1200.

The building is planned in two units, to

The chemistry laboratory has adjoining it a storage and workroom for the teacher. The equipment is adjusted to serve as a biology laboratory.



Left: a typical classroom. Right: the typing practice room.



Ground Floor Plan, Ritenour High School, Ritenour Consolidated School District, St. Louis County, Missouri. Wm. B. Ittner, Inc., Architects and Engineers, St. Louis, Missouri.

which a third unit with classrooms, an auditorium and shops, will later be added. The middle section is devoted to classrooms and other academic uses; the west wing includes a cafeteria and a gymnasium-auditorium.

The ground floor which has windows entirely above the surrounding site, includes five standard classrooms, a biology laboratory, a domestic science room, toilets, storerooms, space for the janitor, and the heating plant.

The cafeteria, which measures 54 by 70 feet, has a seating capacity of 250 at each lunch period. It is separated from the kitchen, which includes the serving tables, by a metal and glass partition. The cafeteria room also serves for group meetings and social gatherings and is amply lighted for study and reading purposes.

The kitchen has the latest model equipment, including a stainless steel serving counter, automatic refrigerator units, gas ranges and fans, and a pressure cooker. The mechanical equipment includes an electric grinder, a potato peeler, a slicing machine, a food mixer, etc. Adjoining the kitchen is a dishwashing room with a mechanical washer. A dietitian's office and a large storeroom for foods completes the unit.

Completely separate, at the rear of the kitchen, are locker and shower rooms for boys and girls, a storeroom, and a dressing room for the cafeteria help.

On the first floor the gymnasium-auditorium, which measures 70 by 90 feet, has a stage 22 by 51 feet. The room proper has an arched lamella type roof, with insulation panels in the ceiling. Roll-back bleachers on the sides have a seating capacity of 500.

Five hundred folding chairs for auditorium use are provided in the room and are stored on chair-trucks under the stage when not in use.

The stage itself is large enough for ordinary school plays and other functions. It can be separated from the gymnasium by means of a folding metal, sound-proof partition. It is

used for music instruction as well as for ordinary school entertainment purposes.

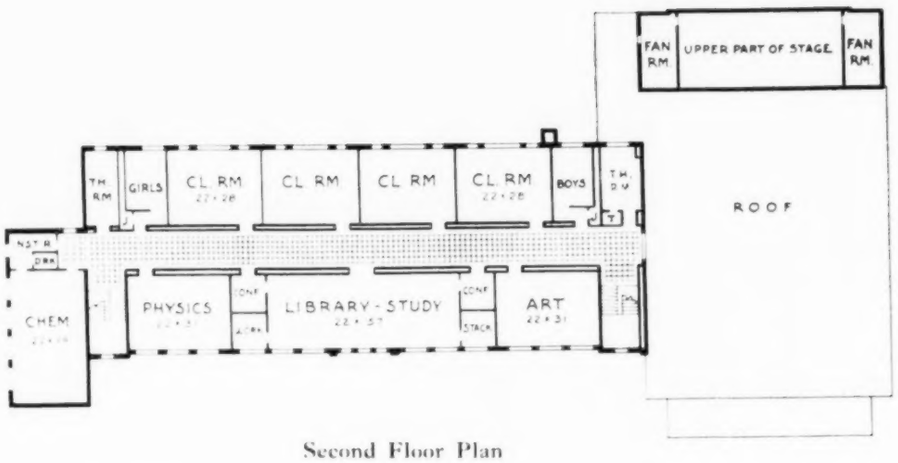
The balance of the first floor includes five standard classrooms, toilets for boys and girls, a principal's administrative suite, and offices for the board of education and the superintendent of schools of the district. A special instructional room is provided for large class groups.

The second floor has four standard classrooms, an art laboratory, a library and study hall, and physics and chemistry laboratories. The library has adjoining it two conference rooms for guidance purposes, a workroom, and a stack room.

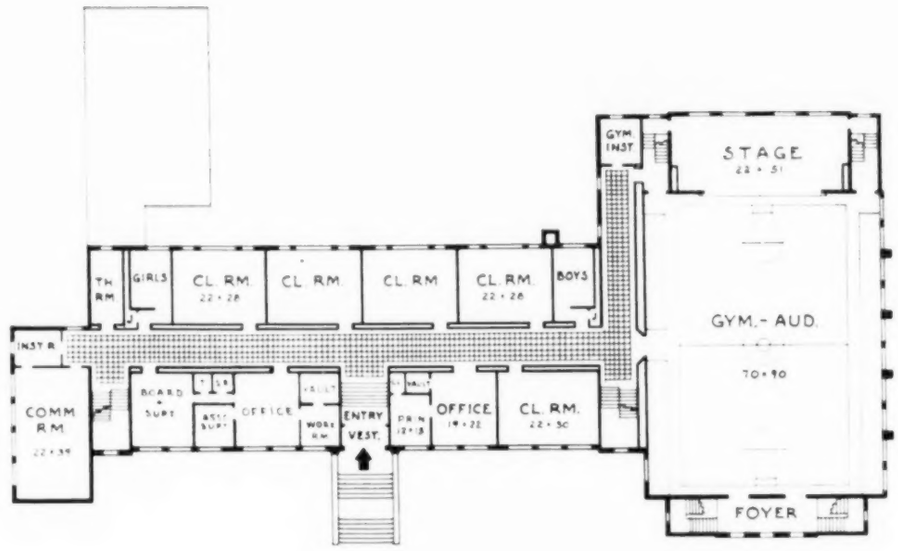
The high school has provisions for vocational or shop work for boys and for this reason includes no shops at the present time. This work is offered in the St. Louis County Vocational School at Wellston, to and from which bus service is maintained. The arrangement makes it possible for Ritenour students to enjoy a comprehensive program of prevocational and vocational shopwork in an ideal, well-equipped building.

The building is built entirely of fire-resisting materials, has concrete foundation, steel framing, concrete floors and roof, and steel stairs. The exterior walls are faced with red shale brick in variegated colors, pattern brick panels, and Bedford stone trim. The interior walls are plastered, painted concrete block; ceilings have acoustic-tile; and floors are asphalt-tile, inlaid linoleum, hard maple, tile, or concrete, according to the special needs of each area.

The building was erected for $627,677, or 70 cents per cubic foot. The architectural work and the engineering work were done by William B. Ittner, Inc., architects, St. Louis, Mo.



Second Floor Plan

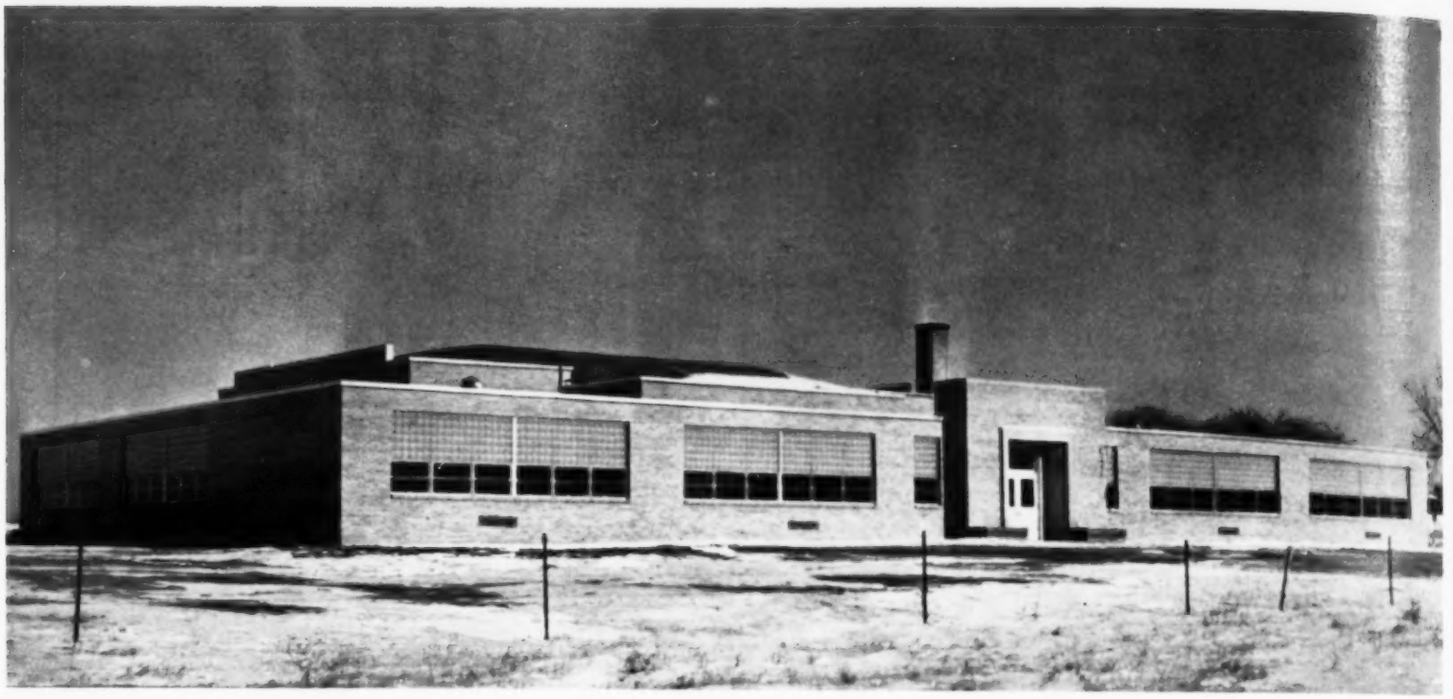


FIRST FLOOR PLAN

0 10 20 30 40 50

The kitchen is fully equipped with labor saving devices, stainless steel shelving and counters.

The gymnasium-auditorium has an independent entrance for community use.



General View, Consolidated School, Capron, Illinois. — Bradley & Bradley, Architects and Engineers, Rockford, Illinois.

Modern Materials in —

An Illinois Consolidated School

The new grade school at Capron, Ill., is a one-story structure, planned to provide in a rural situation for a well-balanced program of education on the grade school level. Classrooms, auditorium, gymnasium, shops, and other areas have been planned for maximum use in an expanding program, and for use by adult educational and recreational groups.

The building is located on a ten-acre site, to be developed for ample playground facilities, a large parking lot, and an area for school gardening projects.

The exterior walls are faced with light-colored brick, backed with concrete block. In the corridors, kitchens, and toilets, the walls are protected by means of a facing tile. All walls and ceilings are painted with a paint of high light reflecting coefficient.

The auditorium-gymnasium.

FIRST FLOOR PLAN

The outer walls of all classrooms have a full length vision strip, with aluminum frames projected in and down in order to prevent draft ventilation. Prismatic glass blocks are used above the vision strip, arranged to reflect the natural light upward into the classroom ceilings and walls.

The ceilings are insulated with rock wool of the 4-inch blanket type, installed over sand-float plaster ceilings. The gymnasium has a ceiling of insulated acoustic-tile.

The flooring in all rooms is asphalt-tile in light colors. The gymnasium has maple flooring on sleepers, and the toilet and locker rooms have terrazzo floors. The interior partitions are lightweight aggregate block of maximum acoustical properties. The walls between classrooms are movable.

The building is heated by a low-pressure vacuum steam system, provided by oil-burning steel boilers. All classrooms have thermostatic-controlled unit ventilators, set in room-length, draft-preventing metal housings. The gymnasium is fitted with unit blowers. All exhaust air is drawn through the lockers to syphon-type ventilators on the roof. The toilets, locker rooms, kitchen, and gymnasium have fan-operated exhaust ventilators.

The natural lighting of the classrooms is such that artificial light is rarely, if ever, needed. On dark days fluorescent fixtures set parallel to the windows provide supplementary light. In the gymnasium, 20 foot-candle intensity is assured by incandescent lights.

The classrooms are equipped with green asbestos chalkboards and cork bulletin boards. Desks and other furniture and permanent trim are of blond-finished oak. Clothing lockers inside the lower grades are of the wardrobe type, and in the upper grades of the unit type.

The building cost $156,933.40 for construction, architectural fees, and landscaping. Of the foregoing amount, $6,943.96 was spent for equipment. On the unit basis the building cost 58.8 cents per cubic foot, or $9.36 per square foot. For a normal initial enrollment the cost was $653 per pupil.

The architectural planning and engineering services were provided by Messrs. Bradley & Bradley, Rockford, Ill.

PRIORITIES FOR SCHOOLS

Schoolmen have been justifiably dissatisfied with the attention given to schools in the plans set up for the control of basic materials needed for the national mobilization effort. The whole Controlled Materials Plan is confused and succeeds mostly in interfering with the orderly completion of needed school buildings and the purchase of articles required to carry on the work of public education. In this connection the National Institute of Governmental Purchasing has called attention to seven needs of local and state governments, and these may we add, apply to schools:

1. A higher priority than a DO 97 for some maintenance, repair, and operating supplies.

2. A priority rating in the public construction field which will enable state and local governments to build schools, highways, hospitals, and other public works projects.

3. A single claimant agency for all state and local supply and construction needs in place of the present diffused, cumbersome, and inefficient arrangement.

4. Amendments to NPA regulation No. 4, providing a DO 97 rating for maintenance, repair, and operating supplies and minor capital additions to make the regulation more workable in a practical sense.

5. Participation by state and local purchasing executives in advisory groups assisting NPA, OPS, and other control agencies.

6. Effective price controls which will halt the upward spiral as it steadily shrinks the current purchasing value of the public dollar.

7. A recognition in the new CMP plan now being drafted of the essentiality of the services of state and local government.

The classrooms are illuminated with directional glass block placed over a vision strip of clear glass.

The American
School Board Journal
William C. Bruce, *Editor*

SECURITY FOR THE STAFF

WITH notable exceptions, the work of the mass organizations of educators, particularly of the NEA and its state affiliates, can be summarized as a gigantic effort to assure for their members economic and professional security. Their efforts for education as such are important and continuous but through their convention proceedings, their periodicals, and their pamphlet publications runs the ever mindful concern for the teachers' permanence in her job, for a satisfactory salary, for a better social status, and assured freedom from want in sickness and old age. Lest the foregoing statements may be considered a condemnation of the teachers' associations as purely selfish and utilitarian groups, it should be added that their approach has been forced on them by the spirit of our materialistic and democratic times, and by the experience which has repeatedly proved that teachers as a class can devote themselves best to their task of education and to betterment in their skills when they are secure in their professional situation.

The task of providing security of teachers is in our opinion the responsibility of school boards even more than it is that of the educational associations. It is the boards who employ the teachers and fix the terms and the length of the contracts. The boards hold the purse strings and it is their willingness to make the community do its duty in supporting education through taxation that determines the salary schedules and the minor conditions of employment, and above all, the sense of security and freedom to do the job of educating children as the teachers know it should be done.

It is disturbing to meet in some communities a deep-seated attitude of doubt toward the school board and the chief school executives that causes changes in administrative organization or policy to be questioned. It is natural that a loyal opposition should exist in every community and in every teachers' organization. But even this opposition should be aware of the integrity of the board's intentions for the welfare of the schools and of the children. Someone has well said that this awareness can be awakened if the board and its executives exhibit a convincing selflessness in their promotion of new policies and if the teachers' place is rightly considered in every major school undertaking, particularly in the fiscal policies. The teacher who knows that the school board is fully concerned for her welfare will be loyal and effective in her work.

CANDOR ABOUT SCHOOL NEWS

SUPT. WILLIAM JANSEN, of the New York City schools, recently advised principals to give parents and the press information which may be requested concerning happenings in the schools. He recommended that the press especially be given replies which contain "fully, frankly, and accurately" the facts concerning a happening.

Every school should have a clear-cut understanding concerning the relations of the school executives with the parents and the press. Happenings which affect an individual child and a teacher or other school employee are private and confidential and cannot be made public. In such instances the parent alone is entitled to the truth, and he is entitled to the full truth. But there are also happenings involving a group of children or teachers which cannot be withheld from the press or from a responsible group representing the parents. It is usually advisable to gather all the facts before answering questions; and it is necessary always that one responsible spokesman only do the talking. The ancient excuse of "no comment" only raises suspicions and gives excuses for inaccurate reports and harmful gossip.

When the newspapermen know that a principal is completely candid they are certain to handle facts with a minimum of harm to the school. And the rare exception only proves the rule.

ON THE THIRD LEVEL

THE development of technical institutes in New York and in some of the southern states and the growth of the vocational and semiprofessional departments in midwestern junior colleges constitute forms of terminal education for occupations that deserve consideration of local boards of education. The educational services represented are democratic expressions of the American educational ladder which rightfully seeks unity in the correct sense of the best opportunity for the greatest number according to their needs and interests, their abilities, and the requirements of local communities for special occupational preparation.

These occupational schools and courses break down the barriers that have surrounded the completion of high school education for numerous young people who by innate ability and inclination, and more often by economic situations, could not or would not go on to the university. These new courses and colleges fill a broad gap in our democratic educational system which has accounted for many of the dropouts in high school and at high school graduation. The growing needs for numerous types of technicians and skilled workers with a much broader theoretical and technical education than apprenticeships or ordinary trade education courses can provide — all point to the economic and social needs of this new, higher form of educational work. Such growing occupations as television, radio, aeronautics, refrigeration, advertising, art, business administration, the social services — are common examples of new fields which require education of a special type for the more advanced workers.

EDUCATION AND MILITARY DEFENSE

THERE is a widespread opinion among schoolmen that the importance of education in this period of stress has been missed by our military leaders and legislators, so that the orderly operation of the schools has been broken into without reason and with serious harm to the young people. In this connection Supt. Lafe Nelson of Lafford, Ariz., calls attention to the damage done to schools through neglect:

> I believe our leaders, military and civilian, often make requests for man power without full reference to objective needs. We should all remember that it is possible to win a shooting war and lose utterly what we're fighting for by dire neglect at home. A neglected generation of children is a relatively lost generation of children and a lost generation of children is a lost America.
>
> It is felt that we should all face up. Military and civilian should put all the cards on the table. We should objectively evaluate our problems. We should take stock of our resources, and in a co-operative objective manner do the best we can to protect our home institutions from damage through neglect while we fight, or prepare to fight, to protect them from the enemy beyond our gates.
>
> Any American who will think objectively knows that full protection for America comes not alone on the military battle fronts. It comes as truly in the home struggle to perpetuate our enviable way of life, by continuing our agencies for the education of our youth. America is American because her people are determined that her children and her children's children shall inherit and enjoy an America as free and beautiful, as prosperous and strong as we have known it. We have no right under Heaven to transmit it to future generations in a mutilated form. We cannot afford to overlook the fact that our battle for survival of our good life must be fought

on all fronts, not only on the military battle grounds, but in our homes, in our schools, in our churches, and in our general association.

Only in a "hot" war where we struggle for survival as a nation should draft boards be instructed to call at random proven public school teachers into inconsequential draft assignments. The way we handled this vital problem in the last war was not objective enough. The children of America paid the price in educational neglect, and the negative results which are now becoming evident and will continue to be evident are not to be shrugged off as inconsequential. That the price of this neglect is a heavy one on the ultimate strength of the nation cannot be denied. We should learn by bitter experience and if there is a way to protect ourselves in a military sense and still not cripple our agencies, which give us over all strength for the future, we should be intelligent enough to do just that.

THE SUBSTITUTE TEACHER

THE substitute teacher has a hard lot. She is expected to take over a class on the shortest possible notice. Unless she has an unusually strong personality and a remarkable ability to size up a class situation, she can hardly be expected to carry on effectively where the regular teacher left off.

During the depression years numbers of cities, and the great cities in particular, employed substitutes full time simply because they could be continued at a flat rate for several years. These cities saved money but they did not contribute to the morale of trained young people seeking a foothold in their profession. During the war and in the reconstruction years, numerous substitute teachers were again employed full time. Their presence in the classrooms was due, so the administrators said, to the lack of sufficient, qualified teachers to complete the city school staffs.

We wonder if the original idea of the substitute teacher as a person to replace a regular teacher during a period of illness, has not been seriously misused as a convenient way of solving a troublesome administrative problem. Isn't it time to limit the staff of substitutes to experienced men and women of exceptional capacity? As a rule, should not the young people just out of the university be hired for a regular class in a situation which will give them during their first year especially, the help of a competent principal and a sympathetic supervisor?

How long will children be submitted to instruction by substandard teachers? The school boards have a deep responsibility in this matter, especially in view of the problems which a long period of years of "mobilization" will inflict on us.

The fiber of freedom is the education for freedom. — *Charles T. Brown.*

"All Aboard"

National School Boards Association Calls for United Advance on the School Front

Edward M. Tuttle

A few months ago, the National Citizens Commission for the Public Schools, after careful study, issued a proclamation signed by all 36 members of the Commission entitled "Schools and the National Crisis." This was done because of the hundreds of inquiries the Commission was receiving as to whether efforts for better schools should be pressed in time of near war.

The conclusion expressed in the Commission's proclamation will bear endless restatement until it becomes a part of our national philosophy, as follows: "If, by threatening us, our enemies were able to make us abandon the efforts necessary to maintain and improve our free society, they would by threats alone have won a major victory. . . . It is our public schools which must bear the main responsibility for maintaining an educated people here. If would be tragic indeed if we neglected them when we need them most."

Forward to Meet the Need

This is no time, then, if we cherish our country and our freedom, to falter where education is concerned. Nor is it enough simply to mark time and just try to "hold the line." The late General George Patton is said to have remarked, "No man ever defended anything for long." He meant that the way to win is to take the offensive.

This is the time to advance boldly to new positions of strength and service on the school front. Such an advance will call for major strategy and major effort. All the forces involved in the educational scene must be brought into relationship to assist in making progress.

In every local community the school board should be the headquarters, the directing center, for this campaign for better schools to meet the present emergency and to insure the future. School board members are called upon to exercise now as never before those qualities of leadership which time and again have raised America to new heights of effort and accomplishment.

The Seven Qualities of Leadership

Someone has listed seven qualities which a leader or a leading group like a school board must possess. There may be others, but all will agree that these seven are essential, and it is difficult to say which is more essential than another.

1. *Integrity* — that quality which attracts the confidence of others; dependability; uprightness; honesty; loyalty. To have integrity is to be incorruptible, sound, unwavering in principle. "You always know where they stand."

2. *Perseverance* — that quality which persists in the face of difficulties, which never acknowledges defeat, which keeps an eye on the goal and tries again and yet again to attain it. "The harder you're thrown, why, the higher you bounce."

3. *Faith* — an unfaltering belief that something better lies ahead; confidence in the ultimate triumph of the right; an inner sense that problems rise to test us, not to thwart us; an "assurance of things hoped for, a conviction of things not seen."

4. *Ability to Plan* — that quality without which good will and good intentions go for nought; knowledge of the facts; judgment as to relative importance; mastery of the job; skill in organizing to accomplish a purpose; efficiency in co-ordinating the work of others "without showing off or showing them up."

5. *Vision* — that quality for lack of which "the people perish"; breadth of view; ability to see ahead and to plan for not only today, but for tomorrow and for another generation.

6. *Initiative* — ability to move ahead without waiting to be shoved; get-up-and-go; a self-starting force which wastes no time in setting about whatever needs to be done; willingness to "go where there is no path" and to "leave a trail" which will be a light to the feet of those who follow.

7. *Courage* — inner strength to face whatever lies ahead, to march "breast forward," never turning back or whimpering at defeat; a resoluteness of spirit that is unconquerable; self-discipline of the highest order; pluck. "Strong and quiet like the hills."

Practical Steps to Take

There are certain definite things that school boards need to do to meet their responsibilities in the present emergency. Many boards already are excellent examples of attainment in some or all of these areas. But too many other boards fall short in one or more aspects.

The present situation is too urgent, for any board to feel complacent or to throw up its hands in trying to do anything in the face of conditions. Every difficulty, no matter how seemingly insurmountable, can be overcome or greatly reduced, by the exercise of those

WHAT PRICE EDUCATION?

"The whole people must take upon themselves the education of the whole people and be willing to bear the expense of it."

— JOHN ADAMS

In the words above, the second President of these United States set forth a principle underlying the new democratic republic, which was less generally accepted in his day than it is in ours, but which still needs to be constantly emphasized. Why must we all be willing to pay the cost of educating ourselves — the whole people, young and old — to a continually higher level of character, culture, and capacity? Because only men so educated can successfully continue to govern themselves. And because only through self-government can men retain their freedom. And because only free men can eventually build a world of brotherhood and peace — a world where the integrity and worth of each individual is recognized and respected by all others. This is our goal, our hope, our faith. Universal education is the road to its attainment. That road must be made straight and strong by all for all. — *E. M. T.*

qualities of leadership described above. Let us consider briefly some areas to be strengthened.

1. *Work for harmony within the board itself.* Little real good can be accomplished for the schools by a board that is divided against itself. If every action of the board were to be tested, as it should be, by one standard — the greatest good of the children — much of the division would disappear. There is no place on a board of education for personal ambitions or grudges, for the selfish interests of individuals or special groups, for partisan politics, or for anything except complete devotion to the educational needs of the community. This is not to say that there are never to be honest differences of view or thorough discussion, pro and con, of each problem as it arises. It is to say that before he casts his vote, each board member shall ask himself, (1) "Am I voting solely on the merits of this issue as I understand them?" and (2) "Whatever the outcome, will I abide by and support the decision of the board?"

Such an attitude is not an impossible ideal or too much to ask of any group charged with the operation of public schools. It is exemplified by thousands of boards throughout the length and breadth of the land. And for those boards that violate this principle and allow schools and communities to be ripped asunder by controversies which could be settled by integrity and frankness, there is mounting evidence in community after community that their days are numbered.

2. *Give all the people all the facts all the time about their schools.* Public education is the business of the public. Every citizen and taxpayer has a stake in it, and every parent has a double stake. They cannot be expected to approve or to support something that they do not understand. True, they have delegated to a board of education responsibility for the operation of the schools, but this does not mean that they expect the actions of the board to be secret or mysterious. Nor does it mean that they don't want to be bothered about school affairs.

The American people believe in the principle of universal education. But too frequently they have little opportunity to understand what the public schools have to offer to their children or to themselves. So they naturally begrudge increased costs. This situation is quickly remedied when the community, the board, and the school staff *work together* "to find the facts, to filter the facts, to face the facts, and to follow the facts."

The machinery by which a community keeps in touch with its schools is of various kinds. There is no one best pattern but a fundamental principle involved is that people should not just be told about things. As many as possible should learn by study and discussion what the problems and the opportunities are. This is never an easy process, but it is always an enlightening and rewarding one. That school board is wise which recognizes the need for such a process of "education about education," endorses it, assists it, receives its findings and gives them full consideration. That school board is unwise (to put it mildly) which opposes community study and participation in school affairs. It is courting disaster and defeat, and always the children are the ones to suffer most.

3. *Maintain the strongest possible administration and teaching staff at all costs.* The instructional staff is the heart of the school. Qualified teachers are in short supply. The national emergency offers tempting inducements, financial and otherwise, to leave teaching and go into industry, defense, or military service. This happened during World War II to a shocking degree. No one will ever be able to compute the loss to America from a generation of children less adequately educated than it might have been — than it should have been had we been alive to our responsibilities. This must not happen again, and the responsibility for its not happening rests chiefly with boards of education (backed by their communities, as under Point 2, above).

4. *Move steadily toward adequate housing for the school population, present and future.* Nationwide, our school plant is woefully inadequate to the growing need. There are too few classrooms of any kind. Too many of those we have are old, drab, poorly lighted and heated, unsanitary and unsafe; no fit places for children to spend so many hours and days of their young, impressionable lives. Li'l Abner would call them "missuble surroundin's" in which to expect a child to "grow up decent."

Study with your constituency the situation in your community more critically than you have before. Make the needed plans regardless of rising costs and the national emergency. There are no signs that costs will be lower in the near future. There is no assurance that the national emergency will not extend for years to come. There is not time to wait for hoped-for assistance from state and national sources. If and when that comes it will be helpful. But meantime children are growing up. They must have schools now.

Read again the words from the National Citizens Commission's proclamation which open this article, and set to work in that spirit. Move forward with architects' plans, finance programs, land purchases, contract awards, construction schedules, equipment requisitions, and the dedication and use of new school facilities as rapidly as you can by concentrated, persistent effort. This is our immediate challenge. It can and must be met.

5. *Work for a curriculum which adequately meets the needs of the children, youth, and adults of your community in this present day.* Do not be misled by the demands of a few for a return to what they call the fundamentals — the 3 R's. Their secret aim is to cut down school expenditures. You know and I know that schools have never left the 3 R's which are being better taught today, in the average classroom, than ever before. Why? Because they are taught, by teachers who are qualified in modern methods, in terms of each child's capacities and needs instead of by the mass drills of former years.

6. *Support strong, active state and national associations for school board help.* We are still discussing practical steps that local boards of education can take to improve the educational program in their communities. No step is more practical than one which will help the board itself to do a better job. It cannot function effectively by staying off alone in isolation. Only by meeting with board members from other communities, by exchanging ideas and experiences, by keeping informed as to successful accomplishments elsewhere, by participating in conferences and workshops, and by becoming a part of the total scheme for American public education can a board best accomplish its own local task. This is the primary reason for belonging to a state association of school boards and through the state to the National School Boards Association. Today, no board can afford not to be so affiliated.

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Middlebury Prudential Committee in Session

The Prudential Committee of the Middlebury Independent School District No. 4, Middlebury, Vermont, is engaged in a program of adapting the schools to the present day conditions. Left to right: Ralph W. Goodrich, superintendent; Leighton Duffany; Dr. L. S. Walker; Professor Bruno Schmidt, chairman; Hilton Bicknell; Mrs. Raymond White, clerk.

What Is a Good Teacher Worth?

A Statement by Supt. Earl H. Hanson

Factors arising out of our free economy and influenced by many forces in our democratic society, help fix salaries of teachers and modify them as conditions change. Individuals and teacher groups often overlook this fact in seeking an increase in salaries based on some immediate goal or emotional influence. The need of going back to basic principles and of reviewing current plans in the light of our social and political system recently caused Supt. Earl H. Hanson, of Rock Island, Ill., to issue a statement to the teachers in the local schools. In summary this statement pointed to the following ideas:

"Salaries should bear some relationship to real value, but in a free economy that factor alone does not determine. I do not believe, for instance, that the relative value of the services of teachers and television comedians can be measured in terms of the money they respectively receive.

"I believe that teaching is vitally important to the welfare of the country; that good teaching is of incalculable importance to the welfare of a growing person. It may be questioned why, if that is true, I do not immediately advocate that the salaries of teachers and television comedians be reversed. A little thought, however, makes clear why one may believe that in terms of pure value, teachers should be better paid, but why in terms of the world as it is they are not so paid. A few of the items which govern are:

"1. We live in what we claim is a free economy. The people buy what they wish and at the price they wish to pay for it. Prices and salaries are not determined in this country upon the basis of critical value alone, but on the basis of comparative supply and demand. On the basis of intrinsic value a glass of milk would cost more than a piece of pie ala mode, but on the basis of supply and demand it does not. There are many arguments for establishing prices upon a system of intrinsic value. Any such system, however, will include many elements which are variable and the resulting price scale could be set up and maintained only in a totalitarian society where some supreme bureau would be in control.

"In a democratic society a brief listing of the factors which determine salaries or incomes in any profession would include at least the following:

a) Supply (discussed above)
b) Demand (also discussed above)
c) What others are paying for the same service
d) What others are paying for somewhat comparable services
e) The cost of living
f) The general prevailing price structure; i.e., the presence of inflation or deflation
g) The extent of the resources of the buyer. The buyer, unless he be a bankrupt, must take a long view as well as a short view. In the case of a family, for instance, the burdens which will ultimately rest upon the family must be considered as well as those which immediately are borne.

"As emphasis please note that the above criteria do not imply that whatever is paid teachers is enough in terms of the critical value of teaching. Frankly, there is a risk, however, in talking too much about paying in terms of the actual value of teaching since it is likely to bring into the picture individual merit rating plans for teachers. These devices, in my opinion, are extremely dangerous and tend to decrease the value of teaching rather than increase it.

"One concluding thought — we who believe in America firmly believe in the value of every human individual — child, parent, and teacher. We sincerely hope that there may continue a feeling of mutual trust between all members of this grand system, and that, while there inevitably are differences of opinion, there may be harmony of action.

"If that is true, we must respect the rights of all to differ in respect to salary policies. However, bitterness need not follow, although it often does. Our important work will suffer if anger over salary and other matters divide us. Hence, while we must respect inevitable differences of opinion, let us also strive for harmony of emotion."

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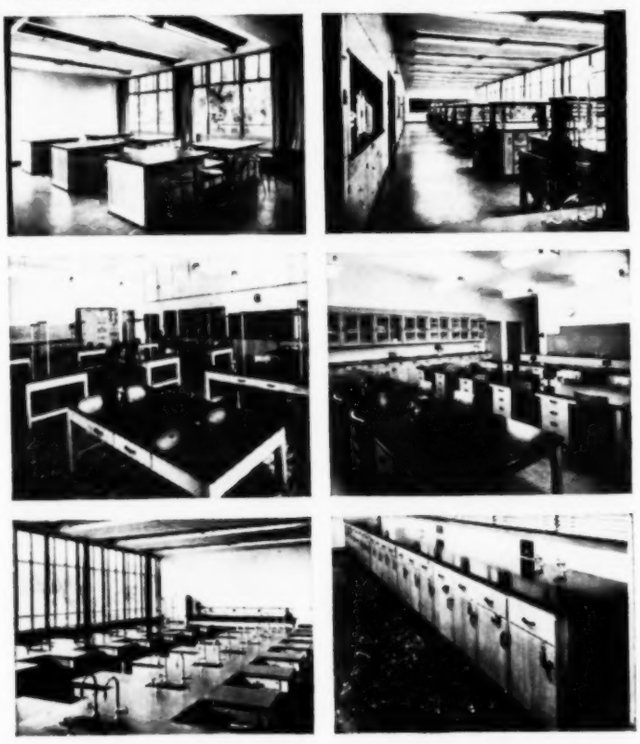

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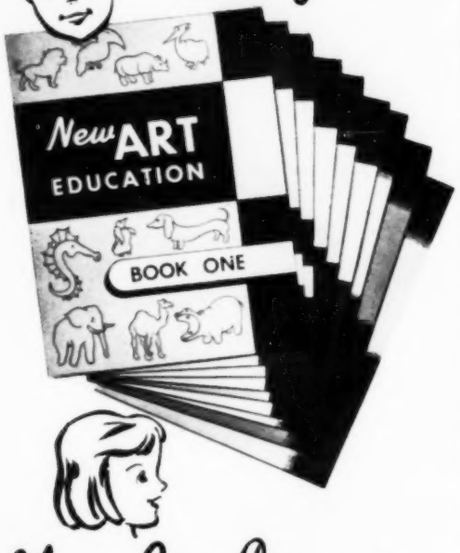

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HAVERHILL PROMOTION POLICY

The public schools of Haverhill, Mass., follow a policy of individual decisions on the promotion of children in the grades. The schools do not consider the mastery of tool subjects the only objective of the instructional program, but add to this the full development of a well-integrated person. Writing in the monthly bulletin of the schools, Miss Mary Kett, director of elementary education, explains the policy:

"We believe in continuous progress for each child. Continuous progress is not necessarily synonymous with a hundred per cent promotion. Occasionally a child, if he is immature or insecure, will make better progress by repeating a grade than he will by going on to the next. For the most part, however, children succeed better if they move forward from grade to grade with other children of their own age. Because the whole matter of promotion is an individual matter, we do not have a hard and fast rule regarding it; on the contrary, we study each case separately and try to reach a decision which, we feel, will be most beneficial to the child.

"In Haverhill, this past year, only 2 per cent of all the children in the elementary schools repeated a grade, and in every case the teachers felt that the child would benefit by repetition.

"A policy such as ours calls for exceptionally good and carefully articulated teaching. If the majority of children are going to move on with their age groups, each teacher must plan so that her instructional program will complement that of the previous teacher. Such a policy calls for individualized instruction — several reading groups, for instance — in each class. Instruction thus meets the needs of the children and insures continuity of growth."

USE OF SCHOOL BUILDINGS FOR DEFENSE PURPOSES

The board of school directors of Milwaukee, Wis., has adopted rules governing the use of school buildings for civil defense. Permission may be granted for use of space in school buildings, without charge, for civil defense purposes under the following conditions:

1. *Daytime Use of Buildings.* Activity is to be conducted so as not to disturb or be in conflict with the regular school or social center activities. Activity is to be held between the hours of 8:00 a.m., and 5:00 p.m., on school days, or on days when the buildings are open for social center purposes, and in space not previously pre-empted. The principal and the school engineer are to be present at the time of such activity.

2. *Evening Use of Buildings.* Activities are to be confined to (*a*) social center, (*b*) buildings other than social centers which will be open for authorized activities on the evening on which the civil defense activity is to be conducted. The principal and the engineer are to be present.

3. *Issuance of Permits.* Arrangements for meetings held in social centers are to be made with the assistant superintendent in charge of recreation and adult education. Permits for other buildings are to be issued by the secretary-business manager upon approval of the principal concerned and the superintendent.

4. *Duties of the Secretary-Business Manager.* With respect to the summertime use of buildings for civil defense purposes during the emergency, the secretary-business manager is authorized:

a) To designate buildings which are to be used for civil defense activities during the summer vacation. He is to co-ordinate the defense activities in board-controlled buildings as much as possible to the end that a minimum number of buildings will be used; in so far as possible school buildings adjacent to supervised playgrounds are to be used.

b) To designate school engineers, if principals are not available for volunteer service, to function as custodians and to assign janitorial helpers for temporary service when and where needed.

NEWARK EXPERIMENTS WITH TELEVISION

The public schools of Newark, N. J., have undertaken an experiment with television and education, in which the parents of school children make weekly visits to the schools by tuning in their local television station at 11:00 a.m., each Wednesday. At that time the board of education's 30-minute telecast report to parents is aired. The series, which is a joint experiment in educational video of WATV and the schools, features pupils and classroom teachers in their normal school day environment — the classroom. A typical classroom has been set up at the studio, with a change in desk sizes for various grades. For each lesson taught, the instructional materials for each class are added to the room so that audiences may see how globes, flat pictures, museum objects, films, recordings, and demonstrations are used to supplement the textbook. From the response to the first five telecasts, both the station and the schools are convinced that television is a natural for public relations.

The programs have been developed as a co-operative project of the Department of Libraries, Visual Aids, Radio, and the Education Department WATV.

PLEASANTVILLE HOLDS THIRD COMMUNITY INSTITUTE

The third Annual Community Institute, sponsored by the schools and citizens of Pleasantville, N. Y., was held March 2-3, 1951, in the Pleasantville high school. This year for the first time, a selected group of students joined with teachers, laymen, and specialists in studying and discussing typical school and community problems. Harold Davey, superintendent of schools, acted as director of the Institute, and Mrs. Raymond Haynes, of the adult education department, served as co-ordinator.

The 1951 Institute was divided into seven committees to study three major topics. Reorganizing secondary education was studied by two committees; two other committees attacked Study Skills and Work Habits; a third group took up The Community Looks at the School.

A dinner, attended by teachers, laymen, consultants, and student workers, closed the two days of discussion.

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SCHOOL FINANCE AND TAXATION

COLORADO SCHOOL AID

A special session of the Colorado legislature will be called, probably in June, to reconsider the $10,000,000 school aid bill vetoed by Governor Dan Thornton.

The bill, approved at the close of the regular legislative session last month, was vetoed, Governor Thornton said, because it was unfair to smaller districts.

Ever since the state income tax law was enacted, $2,150,000 of that revenue has been earmarked for counties to replace local tax levies, which were reduced by that amount. The legislature did not do that this year, but included that money in the over-all $10,000,000 appropriation.

State aid was boosted by $875,000 over the previous appropriation, but the classroom minimum of $2,000 was not changed. That means that the extra money would have been distributed on the basis of payments for each pupil attending school each day — now running about 12 cents. Thus the larger schools would have received most of the $875,000, plus the $2,150,000. That is why Governor Thornton vetoed the bill.

A governor's finance committee originally wrote a $16,000,000 completely new school aid program. The bill was rewritten in the house, where many of the new features were omitted. The senate did not like it and came up with a plan of its own, claiming it was more equitable. Thornton said he would leave it up to the lawmakers to work out an equitable distribution.

The Governor set up a 15-member committee — including five members of the state board of education and five state senators and five representatives — to draft a school financing bill. He instructed the committee to work out a plan which would hold state aid to about $11,500,000. This would include the $10,000,000 appropriation and about $1,500,000 from the state school land fund.

In setting up the committee, Governor Thornton bypassed the governor's advisory committee on school finance. It was set up by Governor Lee Knous and continued by both Governor Walter W. Johnson and Thornton. The Governor gave no explanation for his action.

MONTGOMERY COUNTY PLANS 20 MILLION DOLLAR SCHOOL OUTLAY

The county board of education of Montgomery County, Md., has proposed a $20,635,000 school construction program for the county, to extend over a period of five years. For the school year 1951–52, the plans call for an appropriation of $6,600,000 for the construction of nine new schools and 14 additions. In the four following years the county will be asked to spend $14,035,000 more to build or provide additions to 31 other schools.

The county board, in a detailed report points out that within the past five years the number of school children has increased by more than 12,000. Seven thousand have entered the schools during the past two years.

SCHOOL FINANCE

►McKeesport, Pa. The school board has approved a budget of $1,879,274 for the school year 1951–52.

► St. Louis, Mo. Governor Smith has signed two bills implementing amendment No. 1 to the state constitution, which permits an increase in the city school tax rate and the floating of bonds for school building construction. The amendment, approved by the voters last November, provides that school taxes may be increased by a simple majority of the residents of a district instead of by a two-thirds vote. An election will be held shortly to gain approval of the proposed tax increase and a $17,000,000 bond issue.

► Lawton, Okla. The Federal Government has approved an application of the school board for federal aid in the amount of $92,414 for the white schools, and $5,225.35 for the separate schools. These amounts were allocated for the aid of schools near defense areas.

► Houston, Tex. The school board has prepared its budget for 1951 calling for $19,646,625 for the operation of the schools. Of the total, more than $11,000,000 will be derived from taxes, and more than $5,000,000 from state per capita funds. The teachers' association has petitioned that the $2,000,000 balance at the close of 1950 be used to pay 5 per cent over-all salary increases to the teachers.

► Minneapolis, Minn. The board of education has approved its 1951 budget calling for $16,873,932, or an increase of $1,609,948 over 1950. The budget includes $14,188,191 for salaries of school personnel, an increase of $1,329,733 over 1950.

A New Missouri Consolidated District School Board

The Missouri state-wide program of school consolidation has developed very satisfactory city-rural school consolidations. At Canton the new school district R-V includes eleven one-room rural districts and the schools of the city of Canton. The board of education is engaged in a broad program of building up the school program and consolidating the school plants. Left to right: Jack Hartmann, secretary; Henry Lloyd; K. O. Bone, vice-president; Louis Boeger; J. Russell Ellis, superintendent; Merle Stork, president; R. Marvin Zenge, treasurer.

Introducing Seniors to Business Jobs

Mary Williams*

Four years ago, the members of the commercial group of the senior class in Council Rock, Pa., high school, were studying second-year shorthand, second-year typing, and office practice under the same teacher. During the course of the year the teacher began to realize that she was teaching practically the same information and skills in all three classes, with little differences in emphasis. She found too that the pupils in the class were experiencing a dread and fear of going out to apply for and actually enter their first jobs.

The next year, after talking the matter over with the principal and three or four local business people, each office practice student was placed in the school office for a week's experience in practical office work. This idea proved so acceptable that several businessmen were asked to agree to allow one member of the class to come into their respective offices to work for a week. There was to be no renumeration attached to this work for a week. The job was to be entirely a learning process and the businessman's office was to be the student's classroom for that week.

The local business people were very cooperative. When and if, for some reason, one or another felt that he was not in a position to teach, he was very frank about it. Usually he volunteered to co-operate the following year.

For one week, the members of the commercial group in the senior class reported directly to an office job. No classes were held in school for their section. When the boys and girls returned to school, the experiences were sorted out and used as teaching devices. Particular care was taken to avoid mere gossip and to seek useful facts and principles.

A form was sent out to each office participating in the work, on which the employers graded the student on attitudes, ability, and general co-operativeness.

The whole scheme worked so well, that it has become a yearly teaching enterprise scheduled on the school calendar.

In 1951, we are hoping to go a step further in asking the community to assist even more definitely in the training of our students. We have invited a committee consisting of two businessmen, two high school seniors, and the two commercial teachers to review our present offerings in business subjects and to express their opinion on the betterment and extension of the work.

*Chairman, Commercial Advisory Committee, Council Rock High School, Newtown, Pa.

TEACHERS MAY DEDUCT SUMMER SCHOOL EXPENSES

When are summer school expenses deductible from federal income taxes? The current importance of the question to teachers who are attending professional summer school classes has led Prof. Leevern Johnson, of the Minot, N. Dak., State Teachers College, to summarize the ruling federal court decision and federal order.

"In May, 1950, the U. S. Fourth Circuit Court of Appeals of Virginia handed down a decision in the Nora Payne Hill case, in which the court reversed a lower court's decision and allowed the deduction for summer school expense.

"Since there was some question as to whether the Commissioner of Internal Revenue would acquiesce in the court's decision which would open up a field for deductions which had been denied to teachers it became necessary for the Bureau of Internal Revenue to issue a ruling on the question. The Bureau in its Order No. 4044, clarified the decision as to who is eligible to deduct expenses, and endeavors to interpret the question. In a concise statement on the question, the Bureau wrote: Summer school expenses incurred by a public school teacher in order to maintain her position are deductible as ordinary and necessary business expense under section 23a (1A) of the Internal Revenue Code, and such expenses may be deducted in determining adjusted gross income under section 22n of the Code.

"In general, summer school expenses incurred by a teacher for the purpose of maintaining her position are deductible under section 23a (1A) of the Code, but expenses incurred for the purpose of obtaining a position, or qualifying for permanent status, a higher position, an advance in the salary schedule, or to fulfill the general cultural aspirations of the teacher, are deemed personal expenses which are not deductible in determining taxable net income."

TEACHERS AND ADMINISTRATION

► At Scottsville, Ky., a new plan has been put in operation this year, which makes it possible for teachers to visit other schools and to observe the method of teaching.

► At Munfordville, Ky., all nongraduate teachers in the schools are required to earn six semester hours of credit before they may enter upon another term of teaching. The work may be done in residence or correspondence.

The county has been divided into three sections, with a teacher in charge of each section. This teacher supervises the health program and is required to present a report of the proceedings. Regular teachers' meetings are held and the teachers are in charge of the planning and operation of the programs.

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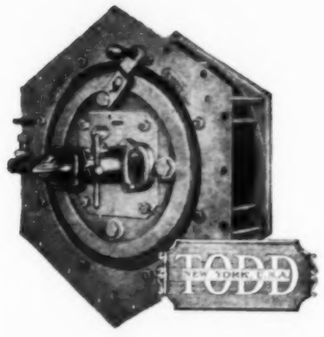

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Building Maintenance Film Aids

School boards throughout the country are using in-service training as a means of improving the efficiency of their janitorial, engineering, and building repair staffs. While larger cities have adopted the plan of a three-, four-, or five-day intensive summer session, many of the smaller cities have followed the plan of a monthly meeting to which one or two specialists are invited to discuss some aspect of the work of maintaining and operating buildings.

In connection with the latter, it has been found useful to provide a motion picture or a film slide on some aspect of janitorial work. Many basic principles and elementary facts concerning electricity, heating, ventilation, safety, etc., can be most readily shown in a motion picture.

The following list includes films of a practical type, useful for a local building maintenance personnel improvement program:

Electricity

AB Circuit Breakers

Bl/wh sound, 16 and 35mm., 10 min. Transportation charges, no rental fee. Westinghouse Electric Corporation, Film Section, Box 868, Pittsburgh, Pa.

Shows where and why circuit breakers should be used and what the dangers and advantages of modern circuit breakers are.

Ten Checks of Electrical Control Maintenance

Bl/wh sound, 11 min., 35mm. Transportation charges, no rental fee. Westinghouse Electric Corp., Film Section, Box 868, Pittsburgh, Pa.

Deals with proper maintenance of control apparatus. Methods of inspection, service, and adjustment are presented.

What Is Electricity?

Bl/wh sound, 16 and 35mm., 20 min. Transportation charges, no rental fee. Westinghouse Electric Corp., Film Section, Box 868, Pittsburgh, Pa.

Tells what electricity is, how it is produced, how to use it.

First Aid

First Steps in First Aid

Bl/wh sound, 16mm., 30 min. Transportation and telegram charges. No. x199. Mr. L. F. Perry, Supervising Engineer, Graphic Services Station, U. S. Bureau of Mines Experiment Station, 4800 Forbes St., Pittsburgh, Pa.

Basic information for beginners in first aid.

General

The Case for Color

Color, 16mm., 20 min. No cost. E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del.

Shows scientific use of color in classrooms, industrial plants, and commercial establishments, and psychological effects of colors.

It's What's Inside That Counts

Color, sound, 16mm. Return prepaid express; no rental fee. Speakman Co., Riverview Works, Wilmington 99, Del.

On plumbing.

Keep 'em Out

Bl/wh sound, 10 min., 16mm. For further details contact local or State Health Department. Film produced by Federal Security Agency, Public Health Service, Washington, D. C.

Describes how rats spoil food, destroy buildings, spread disease; suggests rat control by poison, trapping; describes ratproof construction of buildings.

Modern Cleaning Methods for Modern Schools

Silent, 16mm. No rental fee. The Spencer Turbine Co., Hartford, Conn.

Describes vacuum cleaning of school floors and cleaning of walls and boiler tubes.

Modern Commercial Dishwashing

Bl/wh sound, 35mm., 13 min. No rental fee. Wyandotte Chemicals Corp., Wyandotte, Mich.

Shows correct, sanitary methods of washing large quantities of dishes.

Mortar and Glass

Color sound, 20 min., 16mm. Return parcel post/special delivery; no rental fee. American Structural Products Co., Insulux Glass Division, Toledo 1, Ohio.

Explains installation of glass blocks.

Scientific Floor Maintenance (1)
Scientific Wood Floor Sealing (2)

16mm., (1) 29 min., (2) 20 min. No rental fee. Huntington Laboratories, Inc., Sanitation Products, Huntington, Ind.

Walls of Daylight

Color sound, 25 min., 16mm. Return parcel post/special delivery; no rental fee. American Structural Products Co., Insulux Glass Division, Toledo 1, Ohio.

Story of glass block.

Heat, Fuel, Air Conditioning

Fuels and Heat

Bl/wh sound, 16mm., 11 min. Rental fee: $1.25. University of Wisconsin, Bureau of Visual Instruction, University Extension Division, Madison, Wis.

Shows formation of coal and petroleum, process of combustion, operation of steam and gas engines, describes everyday applications.

Heating and Air Conditioning

Bl/wh sound, 16mm., 11 min. Rental fee: $1.25. University of Wisconsin, Bureau of Visual Instruction, University Extension Division, Madison, Wis.

Shows types of heating equipment, range of jobs they provide, and planning aspects, installation, maintenance work involved in air conditioning.

Heat and Its Control

Bl/wh sound, 16mm., 20 min. Transportation and telegram charges; no rental fee. Mr. L. F. Perry, Supervising Engineer, Graphic Services Section, U. S. Bureau of Mines, Experiment Station, 4800 Forbes St., Pittsburgh, Pa.

Describes heat transfer in steam boiler, heat loss and insulation, uses of insulation. Gives history of heat control.

Know Your Coal

Bl/wh sound, 16mm., 18 min. Rental fee: $1. University of Wisconsin, Bureau of Visual Instruction, University Extension Division, Madison, Wis.

Mining, cleaning, and analysis for heat and ash of coal; how to get the most out of coal.

Our Common Fuels

Sound, 16mm., 11 min. Purchase price: Bl/wh, $45; color, $90. To rent contact rental library. Coronet Films, Coronet Building, Chicago 1, Ill.

Shows how man takes basic fuels from nature and manufactures other fuels from these, compares use of fuels.

Steam for Power

Sound color, 16mm., 41 min. No rental fee. The Babcock and Wilcox Co., 85 Liberty Street, New York 6, N. Y.

Tells of the economical use of steam to generate electrical power.

Motor Maintenance, Lubrication

Four Firsts of Motor Maintenance

Bl/wh sound, 35mm., 11 min. Transportation charges; no rental fee. Westinghouse Electric Corp., Film Section, Box 868, Pittsburgh, Pa.

Portrays four principal causes of motor breakdowns: dirt, moisture, friction, vibration, and tells how to correct them.

(Concluded on page 64)

CALL ON HILLYARD TO HELP . . .

PUT YOUR SCHOOL IN THE PINK OF CONDITION during the Summer "Time-out"

Onex-Seal gives this High School corridor and stairway in Watervleit, N. Y., a mirror-bright surface — anti-slip, too. (Underwriters' Laboratories approved.) Tile Dado is thoroughly cleaned with Hillyard's chemical no-rinse Super Shine-All.

Hillyard offers you this better way to care for your school buildings, top to bottom. And summer vacation is the time to put it to work for you. Acceptance of Hillyard Care by thousands of leading schools and colleges — its use in 15,000 gyms, has been earned because of fine quality, labor-saving characteristics. Meets every school need — (a) for antiseptically clean buildings (b) safety underfoot (c) attractive appearance (d) protection to floor installations (e) costs within any school budget. Modernize your school "clean-up" with approved Hillyard Care and start today.

San Francisco State College, Calif. A heavy coat of SUPER HIL-TONE, Hillyard's safe, non-greasy dustless dressing, will protect this new gym floor during the summer lay-a-way. When school, convenes, wipe it off — your Hillyard STAR GYM finish intact — floor ready for play (and use HIL-TONE for quick daily maintenance the year around).

Specify HILLYARD Products . . . SAVE LABOR-TIME

Check your list — see that you have specialized Hillyard Products on hand for every job — means less work for the clean-up crew! There's SUPER SHINE-ALL that famous no-rinse cleaner . . . shines up everything in sight, walls, floors, woodwork, furniture! There's HILCO-LUSTRE, that new liquid floor renewer . . . makes old floors look brand new! But whether you need a finish for your gym floor, a deodorant for your lavatory a wax or a seal — there is no point in being satisfied with less than the best. Specify recommended Hillyard Care.

SAVE COSTS UP TO 50% Hillyard floor experts are on the school job throughout the summer — to help you get your school in tip top shape — clean up winter's grime — protect expensive installations during summer lay-a-way. Your HILLYARD MAINTAINEER will show you how to apply labor- saving Hillyard products to your OWN needs. Will answer individual floor problems. You can't afford to overlook this FREE Hillyard help in improving your summer cleaning — and lowering costs. Now's the time to get the facts — from your Hillyard Maintaineer, FREE!

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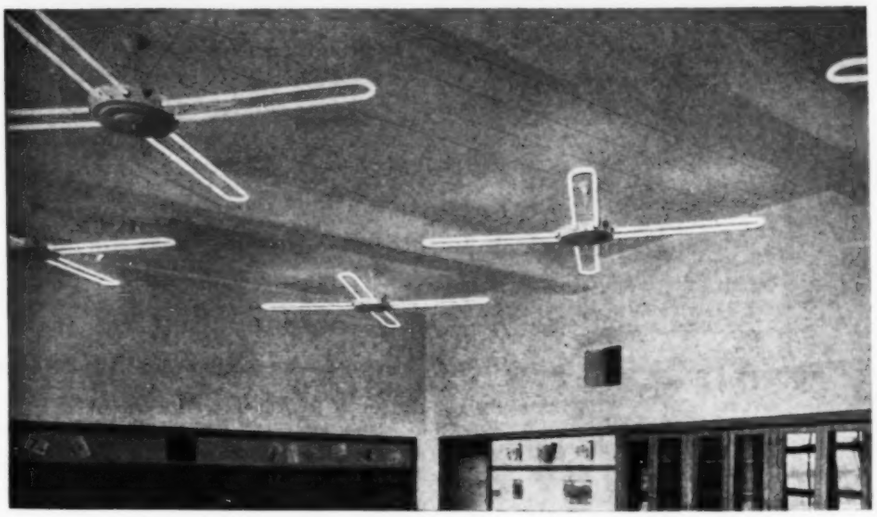

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FACTS ABOUT COLD CATHODE FOR SCHOOL LIGHTING

ILLUMINATING ENGINEERING COMPANY

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(Concluded from page 62)

Lubrication

Bl/wh sound, 16 mm., 30 min. Transportation and telegram charges; no rental fee. Mr. L. F. Perry, Supervising Engineer, Graphic Services Section, U. S. Bureau of Mines, 4800 Forbes St., Pittsburgh, Pa. No. x191.

Presents theory of friction and practical application of lubricants to various mechanical elements. Describes types of oils for various uses. Shows how lubrication reduces work, wear, and waste, and conserves materials.

The Story of Lubricating Oil

Color sound, 16mm., 21 min. Transportation and telegram charges; no rental fee. Mr. L. F. Perry, Supervising Engineer, Graphic Services Station, Bureau of Mines Experiment Station, 4800 Forbes St., Pittsburgh, Pa. No. x235.

Tells how lubricating oil is produced and processed to meet diversified needs of modern mechanisms.

Safety

Approved by the Underwriters

Bl/wh sound, 16mm., 30 min. No rental fee. Underwriters' Laboratories, Inc., 207 E. Ohio St., Chicago 11, Ill.

Describes fire tests of building materials, investigations of fire-fighting equipment, possible sources of fire, casualty-prevention items.

Chemistry of Fire

Bl/wh silent, 16mm., 40 min. Return express postage plus $25 insurance per reel; no rental fee. National Board of Fire Underwriters Film Library, Bureau of Communications Research, Inc., 13 E. 37th St., New York, N. Y.

Demonstrates how elements of fuel, oxygen, and ignition temperature cause fire and how a fire may be extinguished.

Control of Flammable Liquids

Silent, 16mm., 18 min. Return prepaid; no rental fee. Protectoseal Co., 1920 S. Western Ave., Chicago, Ill. (Film Library).

Fire Prevention

Bl/wh silent, 16mm., 15 min. Rental fee, 75 cents. University of Wisconsin, Bureau of Visual Education, University Extension Division, Madison, Wis.

Illustrates precautions against fire, fire resisting construction, electrical insulation, safeguarding inflammable materials.

Ladders, Scaffolds, and Floor Openings

Color sound, 16mm., 9 min. No rental fee. Aetna Life Co., Hartford, Conn.

Designed to combat accidents and injuries in construction industry. Emphasizes safe working habits and hazards of poor equipment.

No Time to Lose

Bl/wh sound, 16mm., 5 min. Return express postage plus $25 insurance per reel; no fee. National Board of Fire Underwriters Film Library, Bureau of Communications Research, Inc., 13 E. 37th St., New York, N. Y.

Shows three ways to turn in an alarm to get the quickest results.

Safety "Know-How" in the Workshop

Bl/wh 35mm. Purchase only: $3. Charles A. Bennett Co., Inc., Peoria, Ill.

Teaches correct use of woodworking tools, care of tools, and how to sharpen hand tools.

Sixty Seconds to Safety

Bl/wh sound, 16mm., 10 min. Return express postage and $25 per reel insurance; no rental fee. National Board of Underwriters Film Library, Bureau of Communications Research, Inc., 13 E. 37th St., New York City.

Shows how omitting a fire drill, or throwing rags into the corner of a school basement may save time but can cause disaster. Tells what can be done to prevent fires.

Stop Fires, Save Jobs

Bl/wh silent, 16 and 35mm., 19 min. Return express postage and $25 per reel insurance; no rental fee. National Board of Underwriters Film Library, Bureau of Communications Research, Inc., 13 E. 37th St., New York City.

Designed especially for use in employee training programs.

The Board also has films on asbestos, oil, and steel.

Visual Aid Indexes

Blue Book of 16mm. Films, The

Educational Screen, Inc., 64 E. Lake St., Chicago 1, Ill. Annual edition. 168 pp.

General index including education, industry, and entertainment films.

Educational Film Guide

Frederic A. Krahn, editor. The H. W. Wilson Co., 950 University Ave., New York 52, N. Y. Annual edition, Sept. 700 pp. Nine monthly supplements annually.

Films for education, industry, entertainment, and other purposes.

Filmstrip Guide

Frederic A. Krahn, editor. The H. W. Wilson Co., 950 University Ave., New York 52, N. Y. Cum. Suppl., Oct. '48, Sept. '49. Nine monthly supplements annually.

Comprehensive alphabetical list by title and subject of all current sound and silent film strips.

Sources of Educational Films

National Education Assn. of the U. S., 1201 16th St., N.W., Washington 6, D. C.

Sources of Educational Filmstrips

National Education Assn., 1201 16th St., N. W., Washington 6, D. C.

Index of Training Films, The

Business Screen Magazine, 150–152 E. Superior St., Chicago 11, Ill. 136 pp.

Describes and lists sources of skill-training films in many fields.

National Directory of Safety Films, A

The National Safety Council, Inc., 20 N. Wacker Dr., Chicago 6, Ill., in co-operation with Business Screen Magazine, 150–152 E. Superior St., Chicago 11, Ill. 57 pp.

Visual aids for safety education in business and industry, home and school; street, highway, and farm.

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9 **SAVE TIME** with the half-reach, descendent carriage-throw lever—you can't miss it!

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You don't have to move the carriage to set the margin stops. You can set both margin stops at the same time. And you never have to "test" your margin adjustments . . . you can *see* that they are set right.

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Your local Underwood representative will gladly arrange a demonstration.

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No. 21

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OFFER ASSISTANCE TO SCHOOL BOARDS

A program of assistance to school boards has been inaugurated as a part of the co-operative program in educational administration under the Kellogg Foundation grant to the University of Chicago. Maurice E. Stapley, professor of education at Indiana University, is consultant on school board functions and relationships. Mr. Stapley will represent the Midwest Administration Center in working with state associations of school boards and with the co-operating universities and departments of education in the midwestern states.

WISCONSIN SCHOOL MEN MEET

Members of the Wisconsin Association of School Administrators and the Wisconsin Association of School Boards met in Milwaukee for their thirtieth, annual joint conference in April. Both groups reiterated their stand in favor of federal aid to education and urged state aid to foster school building needs and advocated further attention to teacher retirement. The school administrators voted from their resolutions endorsement of universal military training. They also adopted a code of ethics for school administrators and will have a summer workshop for administrators at the University of Wisconsin. The changing role of school administrators with regard to community relations, legislation, etc., was stressed in the conferences.

Edward M. Tuttle, executive secretary of the National School Boards Association, urged that all state school board associations have a full-time executive secretary, a fixed headquarters, independence as a group and well-knit organization so as to be able to inform members of emergency needs within a few hours.

Dr. Lester Emans, of Eau Claire, Wis., warned of the increased enrollments to be expected in 1951, and advised that the problem of attracting able persons to the teaching profession be given serious attention now. He said that there were both salary and nonsalary aspects to the problem.

F. J. Brewer, of South Milwaukee, was re-elected president of the school board association; Roy E. Thiel, of Fond du Lac, and William Milne, of Phillips, vice-presidents; and Joseph Hamelink, of Kenosha, secretary and treasurer.

E. G. Kellogg, superintendent of West Allis schools, was elected president of the school administrators' association; George O'Brien, of Two Rivers, vice-president; and F. G. MacLachlan, of Park Falls, secretary-treasurer.

SCHOOL BOARD NEWS

► Worcester, Mass. The school board has decided to pay all school employees six cents per mile for the use of their cars on school business. The action eliminates a $350-a-year allowance formerly given top officials, and $15 and $25 monthly amounts paid teachers, and other existing travel allowances.

► The Citizens' School Improvement Committee of St. Louis, Mo., scored a victory in the April board election when its three-man slate was elected over the opposition of the democratic machine and the local political action groups. H. O. Whiteside led the Citizens' slate, with F. L. Wright and C. H. Christel. J. Harry Pohlman and J. F. Morrell were re-elected as members.

► At South Deerfield, Mass., the schools are providing hot lunches so that every child is assured of one good meal daily. Physical checkups of the pupils are made from time to time and results are reported to the parents of pupils. All children are immunized for smallpox, diphtheria, and other contagious diseases. An occupational prospect research is carried out for young people, with assistance from several local residents who give special talks on the various vocations and those in which they are active at the present time.

► The Madisonville, Ky., independent district and the Hopkins County district have recently been merged into one district, with Harper Gatton as county superintendent, and H. W. Wilkey as assistant county superintendent. The merger is the result of several years of planning and is a great step forward.

► Kansas City, Mo. Wage adjustments, totaling $135,000 have been given to custodians, maintenance men, clerks, secretaries, and registrars. Of the total, $35,000 will apply this year for employees receiving less than $225 per month, and $100,000 to adjust salaries in 1952.

► Phoenix, Ariz. The school board has given $250 cost-of-living increases to 630 school employees. The increases will add $157,500 to the annual pay-roll expenditure.

TEACHERS' SALARIES

► Des Moines, Iowa. A new salary schedule has been adopted by the school board, which rewards the long-time teachers and is arranged on a graduated basis. The schedule includes a salary, plus a $600-a-year cost-of-living allowance. Teachers holding a master's degree and having completed twenty years' service, receive increases of $580 in 1951. Teachers holding a bachelor's degree and having completed ten years' service will receive increases of $360.

► Springfield, Mass. The school board has adopted a revised salary schedule, calling for increases of $80 in starting salary for teachers without experience, and $160 for those with one year's experience. The maximum for teachers with two years' training and ten years' experience is $3,772; three years' training and 12 years' experience, $4,172; bachelor's degree and 13 years' experience, $4,572.

► Topeka, Kans. About 500 school employees, including 390 teachers, have received $300 cost-of-living wage increases. The increases become effective in September for professional personnel, and in July for custodians, matrons, and maintenance men.

► Lincoln, Neb. A salary increase of $300, the second in two years, has been approved by the school board for the school staff. The new schedule sets up new minimum and maximum salaries. Nondegree teachers will be paid a minimum of $2,300 and will go to $3,100 in ten years; teachers holding bachelor's degrees will receive a minimum of $2,700 and go to $4,200 in 16 years; those holding master's degrees will be paid a minimum of $2,900 and a maximum of $4,500 in 17 years. The cost of the increases will reach $300,000 annually.

► At Lawton, Okla., the school board has given bonuses of $135 to 226 instructors for the year 1951, at a cost of $30,000.

► Lubbock, Tex. Bonuses based on a flat $200 for a nine-month school term, have been given to 600 regular employees, including administrative and other personnel. The cost of the bonuses will reach $115,000.

► Kalamazoo, Mich. The salaries of teachers and other school employees have been increased a total of $210,000 for the school year 1951–52. The new schedule which increases the salaries by seven and one half per cent provides minimum annual salaries of $2,800 for teachers with an A.B. degree, and $3,000 for those with an M.A. degree. Annual increments will amount to $100 per year from the second through the fourth year of teaching, $200 from the fifth through the tenth years, and $100 from the eleventh through the thirteenth years when the maximum is reached. The schedule increases the beginning minimum salaries by $300, and the maximum by $500 over the former schedule.

► Fort Madison, Iowa. All teachers have been given increases of 13.9 per cent for the school year 1951–52. In addition, the teachers receive a flat $100 per year cost-of-living increase. The majority of the teachers will receive between $300 and $400 as their shares of the increase.

► Marshalltown, Iowa. The school board has adopted a salary schedule for 1951–52, calling for increases of 11.8 per cent, or an average of $400 for each teacher. The salary of new teachers with two years' training and no experience will be $2,250, with the maximum set at $4,000 for a master's degree and ten years' experience. Men teachers will receive increases of $300.

► The school board of Fargo, N. Dak., has voted to give salary increases of $250 to all teachers for the year 1951.

► Faribault, Minn. The school board has adopted a new salary schedule, calling for an increase of $300 in minimum salaries and $350 in maximum salaries. A minimum salary of $2,700 is provided for teachers with a B.A. degree, and $2,900 for those with an M.A. degree. The maximum salaries are $4,150 and $4,350 for teachers in the two groups.

► Beverly, Mass. The school board has approved salary increases ranging from $150 to $300. The increases establish a maximum of $3,700 for teachers with a bachelor's degree, and $3,900 for those with a master's degree.

► Homestead, Pa. The school board has approved a $200 cost-of-living increase for all school employees, effective as of April 1.

► Winfield, Kans. The school board has approved a $200 cost-of-living adjustment for school employees, including teachers, janitors, and secretaries.

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► Hiawatha, Kans. The school board has adjusted the salary schedule upward for all teachers in 1951. Teachers employed under the schedule will be paid a cost-of-living increase of $270 per year. Those entitled to increases will be paid $270, plus $60, or $360 more than the basic salary of March, 1950.

► Fremont, Neb. All teachers have been given increases of $200 per year for the 1951 school year.

► Holdredge, Neb. The school board has given salary increases averaging 10 per cent to all teachers. The schedule has been raised by $200 for next year.

► Woonsocket, R. I. The school board has adopted a new salary schedule, with a salary range of $1,800 to $3,600. The maximum is to be reached by increments of $200 over the next three years. With the state grant included, the scale will provide a starting salary of $2,400 for teachers.

► Red Wing, Minn. Salary increases averaging $381.50 for faculty members will become effective next September, under a new salary schedule. Increases of $180 are provided, together with cost-of-living increases and special increments. The starting salary for teachers with no experience and two years' training is $2,300; for teachers with a B.A. degree, $2,650; and for teachers with a master's degree, $2,750.

ALBERT LEA SALARY SCHEDULE

The board of education at Albert Lea, Minn., has adopted a new salary schedule, prepared by Supt. J. John Halverson. The schedule which became effective as of February, 1951, calls for a number of salary steps, with increases given on the basis of training and years of experience. Teachers with two years' training begin at $2,300 a year and go to $3,300 in the sixth year; teachers with three years' training start at $2,400 and receive $3,500 in the seventh year; those with a B.A. degree begin at $2,600 and go to $4,000 in the eighth year; and those with an M.A. degree start at $2,800 and go to $4,200 in the eighth year.

Experienced teachers receive credit for five years on the schedule the first year, but no new teacher may receive more than a teacher already employed and having the same experience. After the first year in the system a teacher is placed on the schedule at the point to which his experience entitles him.

All teachers are allowed days for necessary absence, which may be allowed to accumulate up to a total of 40.

CANTON SALARY SCHEDULE

The board of education of Canton, Ohio, has approved a new salary schedule, prepared by Supt. Harold Eibling. The schedule which becomes effective in September, 1951, calls for a minimum of $2,600 for teachers holding bachelor's degrees and $2,700 for those having master's degrees. The maximum salaries are $4,500 and $4,760.

NEW YORK TEACHERS' PAY SCALE UP $500

The basic pay scale for the New York State school teachers will jump $500, effective July 1. Under the terms of the pay bill, signed by the governor April 13, the starting salary in New York City was raised from $2,500 to $3,000, with the maximum after 16 years raised from $5,125 to $5,625.

For cities of more than 100,000 population, and Nassau and Westchester county districts, the new rates are $2,700 for beginners and $5,010 after 16 years.

In districts of less than 100,000 population, the schedule runs from $2,500 to $4,600. An additional $200 is provided for teachers with the equivalent of a master's degree.

A second bill offers an immediate $100 cost-of-living bonus for April, May, and June of the current school year.

COLLEGE STUDENTS DEFERRED

President Truman, in an order issued March 31, authorized deferment from the draft of college students who make good enough grades and pass an aptitude test. The order applies to approximately one million students now in college and is applicable to the 1951–52 school year. To be eligible to take the test, an applicant

1. Must be a registrant who intends to request occupational deferment as a student.
2. Must be under 26 years old at the time of taking the test.
3. Must have already begun and plan to continue his college or university studies. The applicant need not be in a four-year college but his entire course must be satisfactory for transfer of credits to a degree-granting institution.
4. Must not have taken the test previously.

The tests will be given at no cost to the registrant. He will be required to pay only for his transportation to and from the test center.

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School Custodian Courses—1951

June 4–8. **Special Short Course for School Building Service Employees** at Teachers College, Columbia University, New York City. In charge: H. H. Linn, Professor, Teachers College, Columbia University. Fee: $20. Credit: 1 point credit to approved students. No restrictions. Units of study: Custodial Tools and Equipment; Floor Care; Sanitation; Accident Prevention; Heating Plant and Engineering Problems; Painting Procedures and Materials; Employee-Employer Relationships; Personnel Problems.

June 5–9. **Nebraska State Custodial School** at Junior High School, Kearney, Neb. In charge: E. H. Hayward, Senior High School, Kearney. Fee: $5. Credit: Certificates of attendance. Restrictions: For residents of Nebraska, but no one is excluded. Units of study: Beginning Housekeeping, 8 hrs.; Advanced Housekeeping, 8 hrs.; Beginning Heating, 8 hrs.; Advanced Heating and Ventilation, 8 hrs.; School Property Management, 16 hrs.; Waterproofing, 5 hrs.; Plumbing, 5 hrs.; Fire Prevention, 5 hrs.; Care of Grounds, 5 hrs.

June 11–13. **Custodial School** at Technical High School, Omaha, Neb. In charge: J. Wilbur Wolf, Business Manager and Supt. of Buildings, 3902 Davenport St., Omaha. Fee: No charge to local school employees, $5 to out-city and out-state participants. Credit: none. Restrictions: To 200 local employees plus 12 additional participants. Units of study: Cleaning; Floor Care; Care and Operation of Heating Plant; Work Scheduling; Housekeeping and Maintenance.

June 11–15. **School for Custodians** at Ohio State University, Columbus, Ohio. In charge: Dr. E. B. Sessions, Ohio State University, 201 Arps Hall, Columbus. Fee: $5. No credit. No restrictions. Units of study: Civil Defense; Care of Floors; Safety; Heating Plant; Lighting; Public Relations.

June 14–15. **15th Annual Conference for School Custodians** at Purdue University, Lafayette, Ind. In charge: George H. Bush, % Division of Education and Applied Psychology, Purdue University. Fee: $2. No credit. No restrictions. Units of study: Elementary Custodianship; Housekeeping I; Housekeeping II; Heating and Ventilation I; Heating and Ventilation II; Maintenance and Repairs; Supervision.

June 14–16. **Oregon State Janitor's Conference** at Eugene Schools, Eugene, Ore. In charge: Dean S. Morrow, Eugene School District, Eugene. Fee: $1. No credit. No restrictions.

June 20–22. **Conserving School Plant Facilities** at Michigan State College, E. Lansing. In charge: Julius E. Barbour, Agriculture Hall, Michigan State College, E. Lansing. Fee: $15. No credit. No restrictions. Units of study: 72 meetings on problems of maintenance and operation.

June 25–29. **Custodian Training Program** at Hartford & Stratford, Conn. In charge: Laurence W. Eddy, Supervisor, Service Training, 490 Capitol Ave., Hartford. No fee. Credit: Certificate from State Dept. of Education. No restrictions. Units of study (Hartford — Fourth Year Group): Organizing Custodial Staff; Supervision of Others; Cleaning, Miscellaneous Problems; Building Maintenance; Lighting Standards; Economy in Building Service; Fuel Management; Health Protection; Control of Supplies; Check Lists for Custodial Services; Training of Others. Units of study (Stratford — First Year Group): Cleaning Wood Floors; Maintenance of Floors; Heating System — Types and Principles; Electrical — Fuses, Safety, Care of Motors; Carpentry — Care and Use of Tools; Plumbing Maintenance; Equipment and Tools.

June 28–30. **Conserving School Plant Facilities** at Northern Michigan College of Education, Marquette, Mich. In charge: Julius E. Barbour, Agriculture Hall, Michigan State College, E. Lansing. Fee: $15. No credit. No restrictions. Units of study: 72 meetings on problems of maintenance and operation.

July 2–7. **Custodian Training Program** at Waterbury, Conn. In charge: Laurence W. Eddy, Supervisor, Service Training, 490 Capitol Ave., Hartford. No fee. Credit: Certificate from State Dept. of Education. No restrictions. Units of study (Third Year Group): Cleaning Problems — Hardware, Furniture; Building Maintenance — Outside; Heating and Ventilating, Auxiliary Systems; Electrical — Signal Systems; Care of Grounds; Making and Using Work Schedules; Public Relations; Accident Prevention.

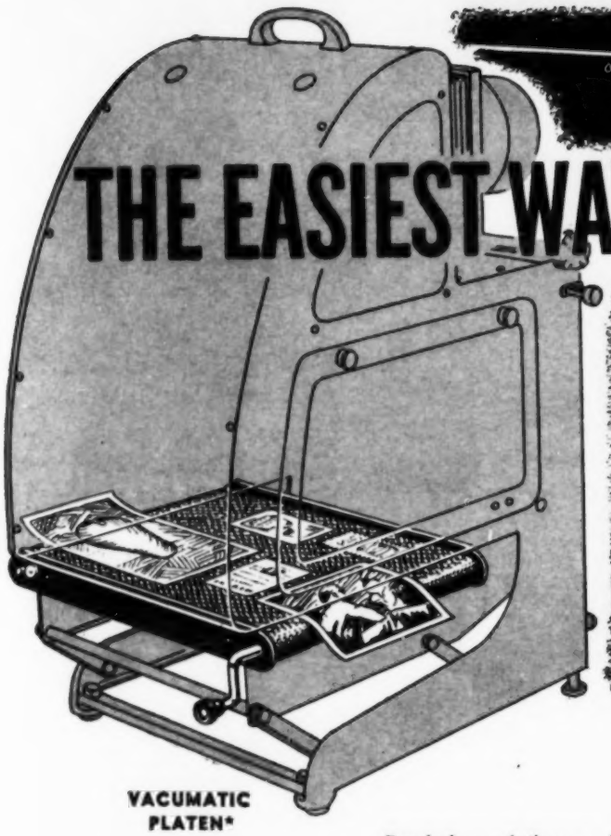
July 5–Aug. 5. **Housekeeping** (For Public Schools) at various schools (8) throughout North Dakota. In charge: G. W. Haverty, Asst. State Supervisor of Trade and Industrial Education, N. Dak. State School of Science, Wahpeton, N. Dak. Fee: From $3 to $5. Credit: Certificates issued to those completing three units of instruction. No restrictions. Units of study: I. Proper Use of Tools and Equipment; Cleaners; Cleaning and Dusting Procedures. II. Maintenance of Classrooms and Public School Buildings. III. Floor Maintenance.

July 9–11. **Custodian School** at High School, Wheatland, Wyo. In charge: Sam Hitchcock, State Director of Vocational Education, State Capitol Building, Cheyenne, Wyo. No fee. No credit. No restrictions. Units of study: Public Relations; New Cleaning Methods and Materials; Floor Treatment; Floor Machines; Sweeping; Care of Equipment; Toilet Sanitation; Painting; Care of Gym Floors; Refinishing Desk Tops; Work Schedules; New Tools and Gadgets.

July 9–13. **Leadership Course for Buildings and Maintenance Personnel** at Utah State Agriculture College, Logan, Utah. In charge: Dr. John C. Carlisle, Dean of Summer School, Utah State Agriculture College. Fee: $3 (indefinite). No credit. No restrictions. Units of study: Teacher-Custodian Relationships; Floor Maintenance; Housekeeping; Heating and Ventilation; Custodian's Work Schedule.

July 16–20. **In-Service Custodial Course** at Palm Elementary School, Austin, Tex. In charge: Roy E. Greenwood, Asst. to Superintendent of Schools, 701 E. 11th St., Austin. No fee. No credit. Local participants, visitors welcome. Units of study: Public Relations; Work Schedules; Fire Prevention; The Schools and the Health Department; Sanitation; Operation and Maintenance of Mechanical Devices; Custodial Supplies and Usage.

Sept. 1951. **Janitor and Maintenance Training Clinic** at 15 central districts throughout state. In charge: C. W. Blanchard, Director, Division of Plant Operation, % State Dept. of Education, Raleigh, N. C. No fee. No credit.



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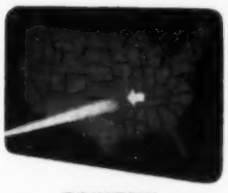

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NEW BOOKS

The School Bus

By Burton H. Belknap. Cloth, xi–212 pp., $4.40. Educational Publishers, Inc., Minneapolis 14, Minn.

The author, formerly associate supervisor of rural education in the New York State Department of Education, discusses authoritatively the present accepted practices in school-bus construction, maintenance, and housing, and takes up such closely related topics as the training of operating personnel and the operation of bus fleets. The final chapters are devoted to special types of buses, the financing of bus purchases, operation, accounting and record keeping, and trends and likely changes in bus design, finish, and equipment.

The importance of the topics discussed may be sensed when it is remembered that some 95,000 school buses are in operation, that about 13,500 buses are bought annually for replacement purposes, and that the growing rural and suburban school enrollments will require vastly increased transportation facilities during the next ten years.

The book is a useful part of any school-business administrative office, particularly if it is read in connection with works on the general administration of pupil transportation.

The School in American Culture

By Margaret Mead. Cloth, 48 pp., $1.50. Harvard University Press, Cambridge, Mass.

This 1950 Inglis lecture urges that teachers cannot be of the grandmother, mother, or sister type — they must combine all of these abilities and keep up with the changes in society and technology so that they may pass on to the child the heritage of the past, the ferment of the present, and the prospective thought and practice of the future. Just how teachers are to teach "a readiness to use *unknown* ways to solve unknown problems" the author does not indicate, except that by implication, she feels we shall muddle through. The conclusion seems unsatisfactory unless we deny all value to a minimum of basic principles of truth, morality, and religion which in ages past helped find the way.

Conservation Education

Twenty-ninth Yearbook. Cloth, 527 pp., $4. American Association of School Administrators, Washington 6, D. C.

This work is not so much "a textbook on conservation or a compendium of technical information about conservation practices. It is rather an administrator's guide, which defines a broad area of school responsibility and indicates what can be done about it." The bibliography which seeks completeness will require some discrimination in use.

Purchasing for Small Cities

Compiled by Russell Forbes. Paper, 23 pp., $1. Published by the Public Administration Service, 1313 East Sixtieth St., Chicago 37, Ill.

This manual discusses definite plans, (1) how to establish a purchasing system, and (2) how to operate the purchasing department once it has been established. The necessary forms and the usual purchasing procedures are fully illustrated and discussed.

Public School Audiometry

By Loraine A. Dahl. Cloth, 290 pp., $3. The Interstate Printers and Publishers, 19–27 N. Jackson St., Danville, Ill.

This book is a text and manual prepared for workers in the field of hearing conservation, with thorough and practical detailed instructions for testing hearing and instructions on instrument handling, public relations, and interprofessional co-operation.

PERSONAL NEWS

► The board of education of St. Joseph, Mich., by majority vote, has accepted the resignation of Supt. Merlin C. Wolfe and has paid him $18,666.64 for the incompleted period of his contract. The resignation was the consequence of differences between the superintendent and the board over the work of a high school principal. Following Mr. Wolfe's resignation a number of teachers demanded an investigation by the Michigan Education Association of the dissension among the staff.

► The board of education of Tomah, Wis., has re-elected Supt. E. J. McKean for a new three-year term. Mr. McKean is completing 29 years as head of the Tomah schools. During this period he has maintained a fine record which shows his ability as a schoolman.

► Will B. Wilson, of Milan, Ind., has been elected superintendent of the Dearborn county schools, to succeed Wilbur Young.

► Lou Doubleday, of Blanchard, Iowa, has been elected superintendent at Northboro, to succeed Roger Miller.

► Claude J. Shufelt, of Morrice, Mich., is retiring at the close of the school year in June.

► Supt. Robert H. McCarn, of Southbridge, Mass., has been re-elected for a two-year term.

► John B. Hendershot, of Newington, Conn., has announced his retirement at the end of the school year.

► Supt. Homer S. Reese, of Heavener, Okla., has been re-elected for another year.

► Charles Riddle has been elected superintendent of buildings and grounds for the board of education at Hobart, Ind. He succeeds Ray Johnson.

► Marvin Easley, of Berlin, Okla., has been elected superintendent of schools at Erick.

► Supt. R. L. Gowan, of Sanborn, Iowa, has been re-elected for another year.

► Walter L. Briney has been elected superintendent of schools at Bridgman, Mich., to succeed F. C. Reed, who has resigned after 29 years' service.

► Supt. Richard Burch, of Elk City, Okla., has been re-elected for a three-year term.

► M. W. Henrie, of Isabel, Kans., has been elected superintendent at Sterling, to succeed Orle Wilcox.

► E. M. Biddy, of Warren, Okla., has been elected superintendent of schools at Victory, to succeed Clyde Foster.

► Clifford Camp, of Wilmington, Ohio, has been elected superintendent of schools at Sharonville, to succeed W. C. Gower.

► Supt. Frank R. Wassung, of Garden City, N. Y., has announced his resignation, to take effect at the close of the school year in June.

► Supt. Jess W. Martin, of Nowata, Okla., has been re-elected for a sixth year.

► Supt. Arch Thompson, of McAlester, Okla., has been re-elected for a three-year term, at a substantial increase in salary.

► Supt. O. L. Scranton, of Tekamah, Neb., has been re-elected for another year.

► Supt. M. M. Vickers, of Watonga, Okla., has been re-elected for the next year.

► Supt. W. J. Robertson, of Las Vegas, N. Mex., has been re-elected for a five-year term. He has completed ten years' service in the schools.

► Raymond W. Jones, of Missouri Valley, Iowa, has been elected director of the school curriculum at Council Bluffs.

► Supt. Neal C. Johnson, of Scribner, Neb., has been re-elected for the next year.

► G. Martin Hofer, superintendent of the Blair, Neb., schools has announced his retirement at the close of the school year. He is leaving the schools after a service of four years.

► Supt. Earl Geis, of Alva, Okla., has been re-elected for his thirteenth year.

► Burl M. Carpenter, of Gridley, Kans., has been elected superintendent at Orrick, Mo. He succeeds Bill Jung, who has resigned.

► Supt. E. H. Tolin, of Clay Center, Kans., has been re-elected for a two-year term.

► Supt. E. R. Adams, of Maplewood, Mo., has been given a new contract extending his period of service one year.

► Supt. J. R. Mounce, of Clinton, Iowa, has been re-elected for a three-year term, with a $400 increase in salary.

PERSONAL NEWS OF SCHOOL OFFICIALS

► The New Orleans parish school board has adopted resolutions expressing its appreciation of the many years of civic service rendered by the late Stuart R. Bradley as a member of the parish school board. Mr. Bradley was active in the Louisiana School Boards Association and his constructive interest in public education led to his appointment to the National Citizens Commission for the Public Schools.

► Carroll C. Crawford, formerly superintendent at Holland, Mich., has resigned in order to take a position as business manager for the board of education at Kalamazoo. Mr. Crawford succeeds Harley W. Anderson, who had been business manager and secretary of the board of Kalamazoo for 37 years.

► Leo Jorgensen has been elected president of the school board at Iowa Falls, Iowa. Clair Gray was named treasurer of the board.

► Henry T. Jaramillo has been elected president of the school board at Belen, N. Mex.

► Darwin Anderson has been re-elected president of the school board at Madrid, Iowa.

► U. S. Arney has been elected president of the board at Red Oak, Iowa.

► Howard David has been re-elected president of the board at New Hampton, Iowa.

► Dr. S. H. Cook has been elected president of the board at Rock Rapids, Iowa. Other board members are Arthur J. Justi, Carroll Henneberg, Dr. C. F. Dykstra, and Pierre Landman.

► E. L. Yeager has been re-elected president of the board at Clear Lake, Iowa. Other board members are M. W. Hughes, Robert Nichols, Earl Noll, and Roscoe Miller.

► Perry Collins has been re-elected president of the board at Algona, Iowa.

► Dr. Fred Sternagel has been elected president of the board at West Des Moines, Iowa.

► W. A. Smith has been elected president of the board at Albia, Iowa. Dr. F. N. Bay was named vice-president. Mrs. Norma Anderson, a new member, was elected for a three-year term.

► The school board at Hoquiam, Wash., has reorganized with Earl Coleman as president; Dr. Harry Meyer as vice-president; and Frank Bowen as secretary.

► Carl W. Eckert has been elected president of the board at Council Bluffs, Iowa. New members of the board are James H. Ross and Dr. Russell C. Blanchard.

► The school board of Aberdeen, Wash., has reorganized with Martell Brown as president, and Steve Turk as secretary.

DEATH OF JOSEPH T. MILLER

Joseph T. Miller, Jr., secretary of the New York City board of education from 1923 to 1938, died April 2, at the age of 72.

He entered the employ of the New York City schools in 1898 as a stenographer and held various offices before being made secretary.

He was a member of the School Business Officials Association and in 1928 acted as chairman of the National School Committee which raised funds for rehabilitating the Thomas Jefferson Memorial.

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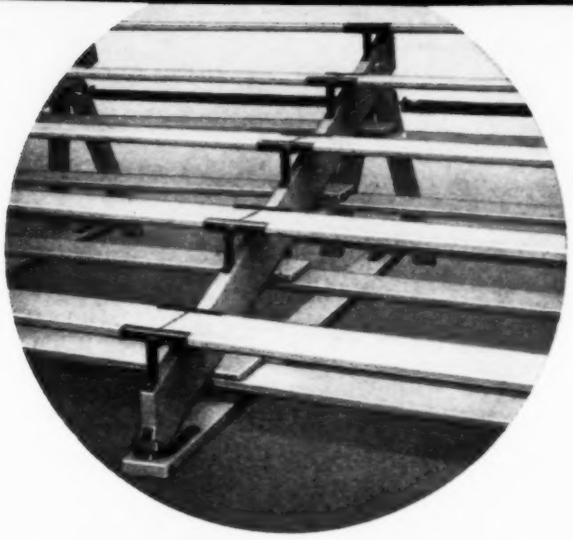

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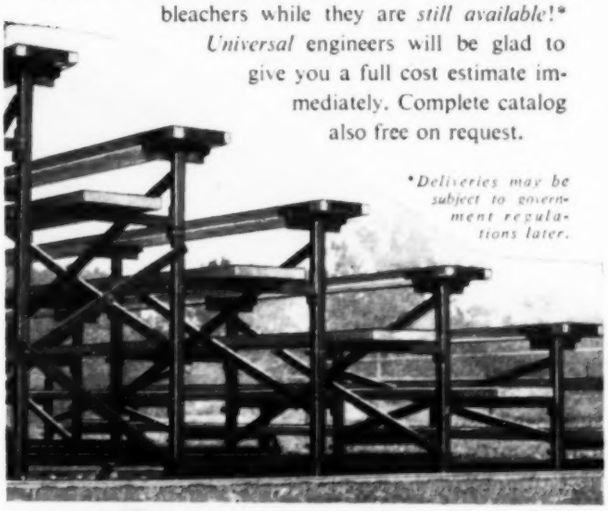

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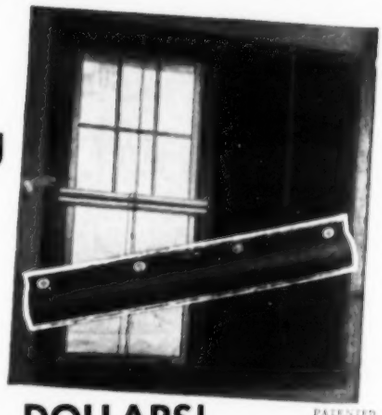

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NEW PUBLICATIONS for School-Business EXECUTIVES

The School Building Problem in New York State

Compiled under the direction of Frank C. Moore. Paper, 58 pp. Published by the State Commission on School Buildings, Albany, N. Y.

A report of a study of 3400 school districts in New York State, involving over 5000 public school buildings, and including such aspects as school enrollments, birth rate trends, population shifts, utilization of existing school facilities, construction standards of new buildings, and other factors affecting the need for school buildings.

The Commission found that certain procedures are necessary for local determination of school building space requirements in a given attendance area. These are (1) modifications to be made in area boundaries; (2) a physical inventory of school building spaces to accommodate the pupils in the area; (3) an appraisal of spaces according to standards relative to safety, health, and usefulness; (4) the cost of rehabilitation, modernization, or replacement in order to bring the spaces up to standards; (5) computing of capacity and potential utilization of such spaces to conform to the above criteria; (6) estimating of data and techniques available and the average future public school enrollments of the area; (7) careful field studies of the area and the community to discover how the enrollment estimate may be affected by the factors of migration, aging of population, changes in housing, or changes in the neighborhood; (8) distinguishing peak enrollments and average anticipated enrollments through a complete study of population, housing, family size, and related data; (9) estimating the economic and educational desirability of transporting children to underutilized buildings; (10) adoption of policies relative to space, design, and construction for new or additional space; (11) determining the amount of new or additional space required to accommodate anticipated average enrollments, and determining the means for taking care of peak enrollments.

The study takes up the immediate and emergency requirements and the factors for creating immediate needs, the metropolitan problems and their solution, the school building problems in school districts outside of cities and metropolitan counties, and a study of the future and long-range needs involving the existing school plant, and the timing and volume of new construction.

Civil Defense Plans for School Systems

Paper, 12 pp. Bulletin for February, 1951. Published by the National Education Association, Washington 6, D. C.

A report offers a review of plans and practices in civil defense. The material was gathered from 16 school communities in the important cities of the country. The report considers size and location of the community in respect to organization, sets up the kind of organization and personnel, offers suggestions for communications, the organization of the school staff, and the instruction of pupils for use in case of an emergency.

Citizens Look at Our Schoolhouses

Paper, 20 pp., 15 cents. Issue of November, 1950. Published by the U. S. Office of Education, Washington 25, D. C.

A progress report of the Citizens Federal Committee on Education concerning the crisis in school building construction. The report points out that the present situation is due to the neglect of the defense period of 1939 to 1941, the World War II, and the postwar period 1945 to 1950. The situation has been aggravated too by large increases in birth rates and the lack of available funds for additional classrooms. The report estimates that there is a need for 520,000 new classes during the next 10 years, or 50 per cent more classrooms than are being provided at the present rate of construction.

HAVE YOU COMPARED MAINTENANCE COSTS LATELY?

STOP and think a minute. What's the maintenance of your window covering costing you? Are you paying and paying again for cleaning, repair and general upkeep?—or are you sitting pretty with easy-to-clean window shades that require practically no maintenance?

With help scarce and labor costs mounting higher and higher, now is the time to investigate every saving possibility. For instance, why not look into the low maintenance cost of CLOTH window shades? CLOTH window shades are not only most attractive and functional, but they represent a huge saving for you—both in original cost and in the negligible upkeep and care they require.

Joanna Western Mills Company, world's largest manufacturer of window shade products, has prepared a new file folder that's filled with valuable information about CLOTH window shades. It describes the various types of window shades and the buildings for which they're best suited. There's an architectural specification file and samples of window shade cloth with recommendations as to their adaptability. Send today for this valuable free file folder of window shade specifications. See for yourself how you can get more serviceable window coverings at lower cost.

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Hardwood Finish Doors

Commercial Standard CS171–50. Price, 10 cents. U. S. Department of Commerce. Available from the Superintendent of Documents, Washington 25, D. C.

This new standard for finish doors includes panel and sash doors, solid-core flush doors, and hollow-core flush doors. Full technical details for interior and exterior doors, grades, etc., are included.

Heating a Building With Various Fuels

Paper, 8 pp. Published by Anthracite Institute, Wilkes-Barre, Pa.

This useful chart provides tables for estimating the relative annual cost of heating a building with anthracite, a conversion oil burner, an oil-burning unit, manufactured gas, and fuel gas. Useful for school-business administrators' reference file.

Tomorrow's Needs in the Schools of Pennsylvania

Compiled by Everett A. Quackenbush. Paper, 40 pp. Bulletin No. 75, 1951, Department of Public Instruction, Harrisburg, Pa.

This report takes up (1) changing birth rates and increasing enrollments, (2) the need for new teachers, larger current expenditures, and additional classrooms, (3) needs of the high schools for increased holding power and for further education, (4) needs for adequate school building facilities as indicated by obsolete and inadequate school buildings.

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Statistics of Higher Education, 1947–48

Prepared by Henry G. Badger. Paper, 105 pp., 30 cents. U. S. Office of Education, Washington 25, D. C.

This chapter of the Biennial Survey of Education for 1946–48 consists of reports from 1788 higher educational institutions. A new feature is data on physical property and permanent funds. The grand total of all educational and general expenditures for 1947–48 was $1,391,594,893. Of this amount, 51.2 per cent was spent by publicly controlled institutions, and 48.8 per cent by private institutions.

Handbook on Emergency Defense Activities, 1951

Paper, 92 pp., 25 cents. U. S. Government Printing Office, Washington 25, D. C.

This handbook of emergency defense activities is intended as a guide to agencies whose functions are devoted to mobilization or to other related phases of the defense program. It includes brief outlines of organization, names and addresses of officials or emergency defense agencies, a list of officials from whom information can be obtained concerning other federal agencies, and other information.

Teachers' Salary Schedule in 107 School Systems in Cities Over 100,000 Population, 1950–51

Paper, 31 pp., $1. Bulletin No. 2, February, 1951. Research Division, National Education Association, Washington 6, D. C.

The report brings out two major points in connection with salary schedules in the larger cities. First, it indicates that in 30 per cent of the 108 school systems in cities over 100,000 population some action was taken to increase salaries during the first semester of the year 1950–51. The second point is the almost unanimous acceptance of the single-salary schedule. Only two of the 107 schedules given — those for Chicago and Boston — are not of this type, but are based on position, with different salaries paid for elementary and high school teachers.

Tax Rates of American Cities

In *National Municipal Review*, January, 1951. Published by National Municipal League, New York 7, N. Y.

The valuable table of prevailing rates in 408 American cities includes "actual" school tax rate per $1,000 assessed valuation.

School Law

By Madaline Kinter Remmlein. Cloth, 376 pp., $4.50. McGraw-Hill Book Co., New York 18, N. Y.

This book outlines the basic principles and the present accepted laws relating to public schools as these apply to teachers and pupils, their interrelations and their relations to the school boards. The work is not, as its title would seem to indicate, a general work embracing all general aspects of American school law — such broad matters as the organization and change in school districts, general process and duties of school boards, school finance, school buildings, are omitted.

Each chapter opens with "editorial comment" explaining the topic to be discussed. A number of typical well-balanced state laws are next presented so that the reader may gain an understanding of the scope and purpose of the laws. Finally two or three decisions are summarized and explained. As practical aids, further readings and studies of practical situations in the reader's experience are recommended.

A Study of Public School Building Needs in Tiffin, Ohio

By E. B. Sessions, John Niederhauser, R. H. Hunt, and John H. Herrick. Paper, 54 pp. The Bureau of Educational Research, College of Education, Ohio State University, Columbus, Ohio.

This report of a study of school building needs takes up (1) a study of the community and its schools, (2) the school population, (3) the present school plant, and (4) the ability of the community to support a school plant. The report includes a study of enrollments showing an enrollment of 1098 in grades 1 through 6, or 94 above the average for the past ten years; in grades 7 through 9 the enrollment was lower than the average for the ten-year period. The 1949–50 enrollment was 454, or 80 less than for 1940–41. Total enrollments it was shown had fallen from 2032 in 1940 to 1868 in 1949–50. In the high school the enrollment has decreased from 534 to 454 in one building, and from 515 to 316 in another building. It is anticipated that the average yearly enrollment will rise from 1877 to 2467 during the next 15-year period. The average yearly enrollment in grades 10 through 12 is estimated at 404, as compared with the average for the past ten years of 392. The present school plant is in need of three new elementary buildings and larger school sites. The community is able to finance an outlay of $1,245,000 for three new buildings and $290,000 for remodeling of the junior and senior high schools.

Public Finance

By M. Slade Kendrick. Cloth, 708 pp., $5.25. Houghton Mifflin Co., Boston, Mass.

This college text takes up the principles and problems of public finance in the United States. Part I is devoted to the general meaning and the social implications of public finance; Part II discusses the enormous increase in public expenditures and means for controlling them. Part III is devoted to the source and means of raising funds for public use; Part IV takes up that puzzling problem of developing a system of balances — federal, state, and local taxation — of controlling, borrowing, and of limiting the public debt. Included in the last section also is a discussion of public finance as a fixed tool of the government for leveling out business cycles and the leveling of national income.

Throughout the book emphasis is on current thinking and the development of workable laws and policies. The development of principles is largely from the historic, the legal, and the economic points of view, and only incidental mention is made of the deep-seated ethical problems, and of the effects of public finance on the individual and the family.

TRIP-L-SAFE Pioneers win national acclaim as major step in pupil transportation

Safety-minded school officials from coast to coast have enthusiastically acclaimed Superior's new TRIP-L-SAFE Pioneer School Coaches as a major step in better pupil transportation . . . and have proved their sincerity by making them first choice over all others for their children's protection.

Three exclusive new "safety firsts"—*Super-Guard* Frame, *Safe-T-Shield* Paneling, and *Unibilt* Body—provide the greatest advancements in school bus safety since Superior introduced the first "All-Steel" coach in 1931. More length, width, and headroom . . . increased visibility all around, including the largest windshield on any school bus . . . extra comfortable seats for passenger and driver . . . powerful new "Multi-Unit" heating system with positive defroster . . . these are but a few of the things you'll like about the Pioneers. Contact your Superior Distributor or use coupon to send for informative 12-page Pioneer Catalog now.

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Offices in nearly all principal cities
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INSURANCE, SAFETY GUIDE FOR SCHOOLS AVAILABLE

A Guide to Boards of Education for a planned insurance and safety program has been made available by the Oklahoma State School Board Association, Inc. Ira Williams, president of the association, presented this publication for the first time at the annual meeting held in Oklahoma City, January 23. The guide was prepared and dedicated to Mr. Williams by the Oklahoma City Association of Insurance Agents.

So many school board members and superintendents have desired information on various school insurance and safety problems that Mr. Williams caused the Oklahoma City Schools Insurance Committee to report on the Oklahoma City Board of Education insurance and safety program in a form that would serve as a guide for members of the Oklahoma State School Boards Association. A similar report was published in 1936 by the New York State School Boards Association, and is now out of print.

The topics discussed in this book include liability insurance, placement of material damage insurance, method of appraising school property, depreciation (with a complete depreciation table), and the methods employed by the Oklahoma City Board of Education in keeping their property values in line with current replacement costs. The advantages of the Oklahoma City insurance plan is summarized.

The Safety Program section contains an outline of the safety program in the Oklahoma City schools. Also included are articles written by the heads of the official agencies which co-operated in the program. The book also includes a bibliography on insurance and safety work for schools.

Copies of the guide may be obtained from the Oklahoma State School Boards Association, through its executive secretary, H. E. Wrinkle, at Faculty Exchange, Norman, Okla.

ST. LOUIS REORGANIZES INSTRUCTIONAL DEPARTMENT

The St. Louis, Mo., board of education has approved the reorganization of top administration in the instruction department. The division formerly headed by J. S. Nantz, assistant superintendent in charge of secondary education, has been merged with the department of curriculum and colleges. R. M. Inbody, formerly principal of the Beaumont High School, succeeds Mr. Nantz, with the title of director of secondary education. William Kottmeyer heads a new division of special services, comprising research and evaluation sections.

WILL HOLD ADMINISTRATION WORKSHOP

The College of Education, of the University of Washington, will sponsor a workshop in school administration from June 25 to 30, inclusive. Students will work in small groups studying administrative problems of special interest. The course will be of benefit to superintendents and principals who desire to work on individual problems. Professor George D. Strayer, Jr., will be in charge of the program.

EXCHANGE PROGRAM SUCCESSFUL

The towns of Norway and South Paris, Me., have been operating an exchange program through which students are exchanged for courses offered. The towns are in close proximity and buses are used to transport the students from one town to another. Norway offers instruction in agriculture and home economics and South Paris transports her pupils to Norway for these courses. South Paris provides courses in industrial arts and Norway transports her pupils to South Paris for this subject. Each town pays tuition to the other town, based on the per capita cost of the course to the town offering it. The plan which has been in operation for four years has proved most satisfactory and helpful to the students.

AASA CONVENTIONS IN 1952

The American Association of School Administrators has announced its 1952 convention will be in the nature of regional meetings, to be held as follows:

St. Louis, Mo., February 23–27; Los Angeles, Calif., March 8–12; Boston, Mass., April 5–9.

The considerable time elapse between these meetings is considered necessary to give the exhibitors, the general speakers, and the Association staff time to make the special preparations for each of the respective meetings.

NEW YORK STATE BOYS WIN HONORS IN SCIENCE TALENT SEARCH

The Westinghouse Electric Corporation, Pittsburgh 30, Pa., has announced the winners in its 1951 Science Talent Search contest.

Robert J. Kolenkow, a 17-year-old high school senior of Niagara Falls, N. Y., who won first place, was awarded a $2,800 Westinghouse science scholarship. Second honors and a $2,000 scholarship went to Frederick J. Ernst, Jr., of Ardsley, N. Y.

In all, $11,000 in scholarships were presented to 40 finalists before an audience of scientists, educators, and prominent persons in Washington, D. C. The scholarships are given by the Westinghouse Educational Foundation and may be used at any college, university, or technical school of the winners' choice.

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NEW DODGE "Job-Rated" School Bus Chassis

You can rely on a Dodge school bus chassis for safe transportation day after day, mile after mile.

In every detail, it meets or exceeds recommendations of the National Conference on School Transportation. Furthermore, it's "*Job-Rated*" at the factory to fit your individual needs. Every unit from engine to rear axle is engineered for hauling your passenger-loads over your roads safely and dependably.

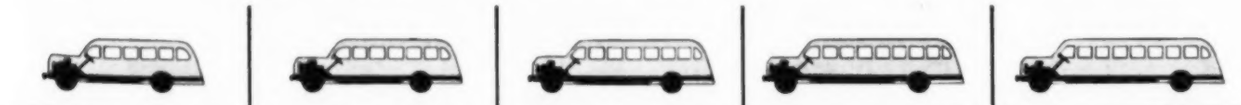
Every unit that SUPPORTS your school bus and passengers—frame, axles, springs, wheels, tires, and others—will be engineered right to provide the strength, capacity and safety you need.

Every unit that MOVES your school bus and passengers—engine, clutch, transmission, propeller shaft, rear axle and others—will be engineered right to meet your particular operating conditions.

More than that, these new Dodge chassis give you greater power than ever—plus new ease of handling, increased braking safety and a host of other new advantages.

Small wonder, then, that you'll enjoy extra safety, extra economy and extra dependability with a Dodge "*Job-Rated*" school bus chassis. Get all the facts from your nearby Dodge dealer.

THERE'S A DODGE "Job-Rated" SCHOOL BUS CHASSIS TO FIT YOUR NEEDS!



MODEL FS-152	MODEL FS-170	MODELS GS-192, HHS-192	MODEL JS-212	MODEL RS-229
2 models—10,800 and 11,900 lbs. G.V.W. For 30 and 36 pupils.	2 models—12,025 and 13,000 lbs. G.V.W. For 36 and 42 pupils.	GS-192, 14,650 lbs. G.V.W. HHS-192, 15,500 lbs. G.V.W. For 48 pupils.	2 models—16,125 and 17,000 lbs. G.V.W. For 54 pupils.	2 models—18,075 and 19,000 lbs. G.V.W. For 60 pupils.

NEW LOW COST *Roof Life*

AT the Harold Quinlan Cut Stone, Ltd., Ville La Salle, Quebec—C. J. Bellamy of Tremco inspected a built up roof 300 feet long that was badly dried out and the roof felts in need of resaturation.

Imagine the cost of hauling roofing material over 60 feet to the roof and then at least 100 feet across the roof. C. J. Bellamy pointed out to Harold Quinlan, the owner of the company, that Tremco could save time and money by its method of *PUMPING* the roof resaturating material from the ground to the point of application.

C. J. Bellamy

Contractor J. P. Simoneau, Ltd. of Verdun was secured and the job begun. Both Messrs. Quinlan and Simoneau were delighted with the speed of the job, the savings, and quality of the finished job.

Again Tremco proved its methods are the most effective and the lowest cost methods for preserving roofs. *You can't buy experience by the barrel.* There's a Tremco Man near you. Let the Tremco Man give you a survey of your roof.

Tremco Pump

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SCHOOL LAW

Schools and School Districts

The territory of a school district is "compact" and "contiguous" within the Community School District Act respecting the formation of such districts when it is so closely united and so nearly adjacent to the school building that all students residing in the district, their ages considered, may conveniently travel from their homes to the school building and return the same day in a reasonable time and with a reasonable degree of comfort. S.H.A. ch. 122, §§ 8–9. — *People ex rel. McLain* v. *Gardner*, 96 Northeastern reporter 2d 551, Ill.

A petition for the formation of a community unit school district would not be disproved on the ground that its territory was neither "contiguous" nor "compact," because a portion of its area taken from other school districts was a highly industrialized property wherein there were no school children to be educated. S.H.A. ch. 122, §§ 8–9. — *People ex rel. McLain* v. *Gardner*, 96 Northeastern reporter 2d 551, Ill.

A school district is bound to carry out all contracts which have been, in good faith, entered into by a district which is annexed to it. Ark. stats. §§ 80-426 *et seq.* — *Chidester School Dist. No. 59* v. *Faulkner*, 235 Southwestern reporter 2d 870, Ark.

Where both plaintiffs held certificates to teach in the state, issued by the Arkansas State Board of Education, and received contracts to teach in a school district which was later annexed to the defendant consolidated district, the plaintiffs were qualified to teach in the defendant district, and were entitled to recover the full amount of their contracts for the teaching period when unable to secure other employment. Ark Stats. §§ 80-426. — *Chidester School Dist. No. 59* v. *Faulkner*, 235 Southwestern reporter 2d 870, Ark.

School District Government

In the absence of an express or implied statutory limitation, a school board may enter into a contract to employ a teacher or any proper officer for a term extending beyond that of the board itself, and such contract, if made in good faith and without fraudulent collusion, binds the succeeding board. — *Chidester School Dist. 59* v. *Faulkner*, 235 Southwestern reporter 2d 870, Ark.

A school board may contract for the services of an employee, to commence at a time subsequent to the end of the term of one or more of their number, and subsequent to the reorganization of the board as a whole, or even subsequent to the terms of the board as a whole, and the fact that the purpose of the contract is to forestall the action of the succeeding board, may not, of itself, render the contract void, but a hiring for an unusual time is strong evidence of fraud and collusion, which, if present, would invalidate the contract. Ark. Stats. §§ 80-426. — *Chidester School Dist. No. 59* v. *Faulkner*, 235 Southwestern reporter 2d 870, Ark.

Teachers

In Indiana, the teacher tenure is based wholly on contract. Burns' annotated statutes, §§ 28–4307. — *State ex rel. Tittle* v. *Covington Community Consol. Schools*, 96 Northeastern reporter 2d 334, Ind.

Even if the legislature by an act providing for the consolidation of schools, expressly or by implication, intended to cancel all existing tenure contracts held by abandoned school corporations with teachers, such cancellation would have been invalid as violative of the federal and state constitutional provisions prohibiting the passing of any law impairing the obligations of contracts. Burns' annotated statutes, 28–4307, 28–5901 to 28–5911; Ind. constitution, art. 1, § 24; U.S.C.A. constitution, art. 1, § 10. — *State ex rel. Tittle* v. *Covington Community Consol. Schools*, 96 Northeastern reporter 2d 334, Ind.

Teacher tenure in Indiana is based upon the public policy of protecting the educational interest of the state and should be liberally construed to effect its general purpose, since it is legislation in which the public at large is interested. Burns' annotated statutes, §§ 28–4307. — *State ex rel. Tittle* v. *Covington Community Consol. Schools*, 96 Northeastern reporter 2d 334, Ind.

Pupils and Conduct of Schools

A board of education of a city school district had statutory authority to adopt a rule excluding from the public schools within its district children who have not been vaccinated and the enforcement of such a rule was not a violation of the constitutional right to religious freedom. Ohio general code, §§ 4838–5. — *State ex rel. Dunham* v. *Board of Education of City School District of Cincinnati*, 96 Northeastern reporter 2d 413, 154 Ohio St. 469.

A New York State statute providing for the release of public school pupils from school attendance to attend religious classes, and the regulations adopted pursuant thereto providing for "released time program" of religious instructions were constitutional and did not deprive pupils of the free exercise of religion. N.Y. Education Law, 3210, subd. 1, par. b; N.Y. constitution, art. 1, § 3, U.S.C.A. const. amends. 1, 14. — *Zorach* v. *Clauson*, 102 N.Y.S. 2d 27, N.Y. App. Div.

NATIONAL CITIZENS COMMISSION OPENS NEW OFFICE

The National Citizens' Commission for the Public Schools has opened a second regional office in Sacramento, Calif.

"The establishment of regional offices," according to Henry Toy, Jr., commission director, "is an outgrowth of our conviction that the solving of school problems must primarily be done on the local level. Last spring we began operation of our first regional office in Louisville. The success of this office was so marked in advancing our program of increasing citizen interest in the schools that the decision to open a second office was a logical step."

K. H. Dobelbower

The new office is under the direction of Kenneth H. Dobelbower, and is located at Farmers and Mechanics Building, 1014 Eighth St., Sacramento. The territory includes the states of Washington, Oregon, Idaho, Utah, Nevada, Arizona, and California.

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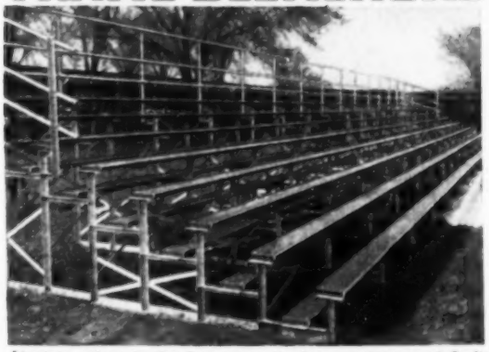

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MILITARY DEFERMENT OF COLLEGE STUDENTS

(Continued from page 39)

Commission plans for guidance which will help the students to determine where they can make the most effective contribution to the war effort, including essential supporting activities. The War Manpower Commission should also make plans for the instruction of those for whom further training is necessary to enable them to make their most needed contributions to the support of the armed forces.

4. Any plan for student war training must take into consideration the possibility that the Selective Service Act may be amended so as to lower the age of liability for service, under the Selective Service Act, to 18 years.

The obvious reaction was that this was not what the Colleges wanted. They wanted to save the nation all right, but they were keenly interested in saving the colleges at the same time. It was not always too clear which was the objective.

In this connection it is interesting to note that the elaborate study of "Age in the Selective Service Process" (SSS Monograph No. 9), recording the uncertainties of the military administrative policies regarding age came to the final conclusion presumably for World War III in a full mobilization:

Under age 18: No control, except prohibition from voluntary enlistment.

Ages 18 to 25: No deferment.

Ages 26 to 29: Must be indispensable and irreplaceable, necessary to and regularly engaged in war production, agriculture, or an activity in support of the national health, safety, or interest to qualify for occupational deferment.

For the other age groups the basis of deferment is progressively less rigorous. If it is said these are recommendations for a total mobilization, the answer is that preliminary steps should not be inconsistent with the ultimate plan.

Selective Service and the Present Testing Plan

A principle underlying the current Selective Service Law is: "In a Free Society the obligations and privileges of serving in the armed forces and the reserve components thereof should be *shared generally*, in accordance with a system of selection which is *fair* and *just*, and which is consistent with the maintenance of an effective national economy." I suppose this means among other things that in a free society with no special privilege college students should assume their share of military service and their obligations as citizens, and go into military service just as every other boy, rich or poor, working or not working, as the case may be, as determined by a just and fair system.

President Conant's recent blunt "no deferment" statement is a heartening statement, in the right spirit and worthy of institutions with a trusteeship for culture and civilization. This is so whether one agrees with him in detail or not.

There is no need to describe the testing plan in detail. The basic principle is wrong and the technique is dubious. Military service is an obligation of every citizen of the required age. The basic problem is to call those liable for military service in a fair manner. Calling up people by national lottery or by birthday is a fair manner. The system could readily break down in the emergency if some extraneous or extrinsic basis relieved certain boys of their obligation. The system would be weakened if in the present situation the system was not self-contained and the decisions were made by persons other than the personnel of the system. The present plan, if it were consistent with the Selective Service System should merely present the results of the test as "information" for the local boards. Everybody knows that most local boards would consign them to a wastebasket, as "incompetent, irrelevant, and immaterial." Taking away such powers from the local board is part of a termite undermining of the basic principles of Selective Service. But, of course,

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the basic criticism is that large numbers of boys are relieved of their obligations, and other boys will be required to take their place in this sacrificial duty. The maintenance of colleges in the emergency, the visionary long-term service to civilization, the training of leaders who could learn more in the services, the training of scientists who will never serve in this emergency, the over-evaluation of what colleges do for people, are not adequate bases for the releasing of certain boys of obligations of citizenship in order that they shall become the leaders of those who fought for them and survived.

The proposed testing program is interesting from many angles. If it were a test of achievement that really tested what college students at various levels ought to know, one might be shocked to find out what this "nation of sixth graders" has become in their so-called selected or elite groups. There might be a corporal's guard left and the deepening dilution of educational quality might stand revealed. But apparently from current reports each institution will be a unit. In that case you have the amazing diversity of the intellectual character of the educational institutions. Things with the same name are not always the same thing. With the greater diversity of the quality of secondary education, the difference in standards of admission, the extent to which dilution has extended, the unreliability of teachers' marks and the limited significance of such tests as are proposed. The military obligations of citizenship will be lost in the educational quicksands.

In this connection it will be pertinent to put into the record some sharp statements made in the *American Magazine* by Dr. Henry M. Wriston, president of Brown University:

> The distinction between the college graduate and the nongraduate is becoming more marked every year, and the importance attached to a college degree has reached the point of absurdity in many fields. Thousands of students now attend college not so much to gain an education as to obtain degrees which will serve as "passes" to desirable positions and advancement after graduation. Such a condition is a menace to our democratic way of life. It threatens real education since it tends to convert colleges into assembly lines for the production of degrees, instead of institutions where minds are enlarged and personalities developed.
>
> The degree snob has had the wrong kind of reorientation. It injures instead of improves him; it is inimical to the democratic concept and should be fought as one would fight the plague.
>
> Colleges "fully accredited" often have programs so shoddy as to be scarcely believable.
>
> The difference between the competence of a person who graduates at the bottom of his class in a poor institution is so great that the degree gives no index of capacity.
>
> Moreover, a degree is no better measure of the character of the person who receives it than of his competence. The same degree is given to the scholar and the social climber, to a man of highest integrity and the shoddiest crook who cheats his way through a negligent college.

The cry of "Haven for Slackers" which was applied to the colleges in World War II as noted in General Hershey's reports, while not always true did have some foundation. The colleges themselves ought to be the ones who protest against such perversion of democratic and fair principles in the application to the most sacrificial obligation of citizenship. Such moral, social, and spiritual leadership should be expected of them. Temporary depression is only temporary unless indeed Christian civilization should collapse, and our deferrees could serve efficiently under that famous banner of the Hammer and Sickle. On them may be the responsibility which Churchill clearly pointed out in Clough's poem of gaining the painful inch and it may be— "It may be, in yon smoke concealed, Your comrades chase E'en now the fliers, and but for you possess the field."

Many students have today shown they have no sympathy with this effort to protect them. Their enlisting in the armed forces is evident that no such spirit animates most of them. President Wilson describes this spirit in a registration proclamation in 1917 as follows:

> The younger men have from the first been ready to go. They have furnished voluntary enlistments out of all proportion to their numbers. Our military authorities regard them as having the highest combatant qualities. Their youthful enthusiasm, their virile eagerness, their gallant spirit of daring make them the admiration of all who see them in action. They covet not only the distinction of serving in this great war but also the inspiring memories which hundreds of thousands of them will cherish through the years to come of a great day and a great service for their country and for mankind.

This spirit exists today as evidence by the volunteering of students ahead of their time to have a free choice of services, but one must not forget that free volunteering has always failed in our history and the coercive effect of the draft is probably as important as the direct operation.

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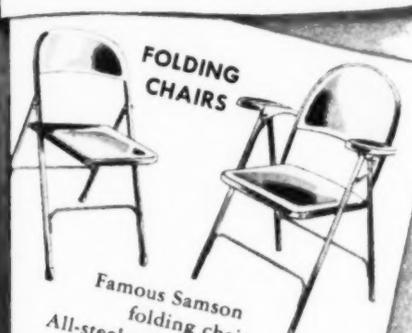

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PSYCHOLOGICAL MOMENTS IN SCHOOL ADMINISTRATION

(Concluded from page 24)

citability, or expectancy." By definition, as well as by the constitution of human nature, these "occasions" are not ever present. It is a wise superintendent who sees them coming and is prepared to profit by them. It is a wiser superintendent who prepares for them and then helps produce them.

Change takes place by evolution, willy-nilly. With the responding-to-pressure policy, the evolution is unguided, the superintendent is caught at the mercy of situations, and changes often are devolution; with the demonstration policy, the young zealot tries to substitute revolution for evolution, and again devolution most likely will be the result; with the policy extolled in this exposition, the result is a guided evolution. Progress under guided evolution is planned, and it comes only as fast as the public can appreciate it and adjust to it. Guided evolution in school administration consists of capitalizing and creating psychological moments.

SCHOOL BOARD MEMBERS ANSWER CRITICISMS

(Concluded from page 28)

action in dissolving criticisms and problems relating to the schools.

Preventive Measures. In some respects it is more fundamental for a governing board to take measures which tend to prevent the development of criticism. Among such measures are the following:

1. The district should have an adequate set of board rules and regulations to insure fair and equitable treatment of all.

2. The board and administration should operate in terms of known policies.

3. The district should recruit and retain a high type of personnel to staff its schools and offices.

4. The board should request the superintendent to include regularly on the board agenda an "educational report" which will, over a period of time, acquaint the board with many different aspects of the work of the schools. The superintendent should invite teachers, principals, and other district employees who are responsible for or especially familiar with the work being reported, to make such presentations.

5. The board should have confidence in the schools and their program or cause changes to be made so as to have complete confidence.

In addition, the board should request the administration to make sure that every teacher or other school employee follows a course of action designed to give every child the quality of instruction he deserves and to help him understand what he is doing and why so that he may effectively interpret the school program in his own home and with the neighbors.

In the competition that now exists for the attention of the human mind, this is perhaps the single most fundamental point at which the inception of criticism may be prevented. On the whole, parents and other citizens are well satisfied with their schools when the children are happy and well satisfied.

KEEPING THE SCHOOL LUNCH PROGRAM FROM THE RED

(Concluded from page 33)

cafeteria line seem free and eager to voice their dislikes before children. "I hate liver," "I can't stand even the smell of lamb stew," "Oh, fish today. I can't eat it," are all familiar to the school lunch worker. The power of suggestions, pro and con, regarding foods on the counter have a wide acceptance for the young ears which catch the remarks.

PERSONAL NEWS OF SCHOOL BOARD OFFICIALS

► George F. Monahan has been appointed school department purchasing agent for the board of education of East Providence, R. I. Mr. Monahan had served for the past 50 years as purchasing agent for local industries, and had been active as an officer for the National Purchasing Agents Association.

► Angelo J. Perini has been elected president of the board at Townsend, Mass.

► Mrs. Roy Carlson has been elected president of the school board at Decorah, Iowa. J. Hubbs Burreson is the new member of the board.

► Lambert Thelen has been elected president of the board at Carroll, Iowa.

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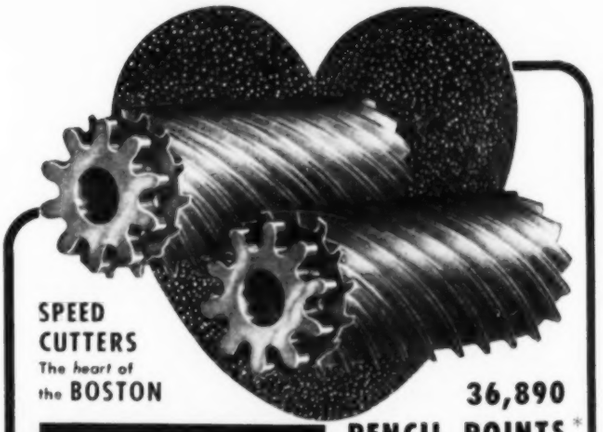

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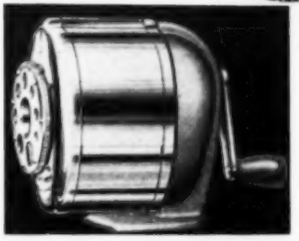

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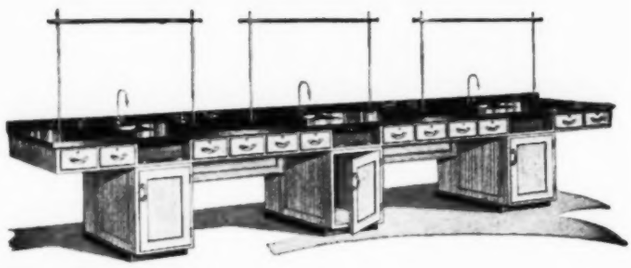

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THE OUTLOOK FOR TELEVISION EDUCATION BRIGHTENS

(Concluded from page 38)

offering a wide variety of courses, including shows that present information on the school's activities and create a better understanding of the school itself.

Approaches to School Television

Dr. Franklin Dunham, chief, Educational Uses of Radio, U. S. Office of Education, suggests the following activity sequence as useful in developing an experience background for the eventual operation of an educational TV station:

1. Use whatever appropriate facilities the school or college has now to write, produce, and rehearse television shows.

The school or university with some experience in radio broadcasting can start its television activities by writing TV scripts and producing programs in its own building with whatever facilities it has available, including the use of its broadcasting equipment and the purchase of a studio camera costing in the neighborhood of $150 to pick up still camera shots for adding to the television script. The final rehearsals can then be held in a professionally equipped studio and the program presented over this same local station.

2. Equip a TV studio for your school system or college.

The school system or institution can equip its own studio with a TV camera-chain costing about $15,000 where complete rehearsals can be carried out before they are put on the air. The completed program can then be taken to a local TV station for final production.

3. Own and operate your own TV station outright or in co-operation with other educational institutions.

When the FCC "freeze" is lifted and the tentative reservations for educational institutions have been approved it will be possible for a school system or college to build and own its own television station and equip a complete studio there.

Several universities have estimated the cost of erecting an educational station with studio equipment similar to that of a standard professional television station at between $150,000 to $300,000, depending on the completeness with which the station is equipped and local circumstances. These figures, of course, include providing a transmitter.

However, in addition, operating expenses will also have to be met and will depend on the number of hours the station is on the air and the kind of talent it is desired to use. It has been pointed out that since educational stations would present simple and more natural types of programs and would not be forced into competition for talent — a factor that adds considerably to the expense of commercial stations — they could operate at a fraction of the costs of the average commercial station today.

The money hurdle and scarcity of frequencies make it appear likely that in many communities where space in the television spectrum is set aside for educational use school systems will combine with each other and with other near-by educational institutions to provide a co-operative program. The FCC has specifically recommended that such co-operative arrangements be carried out "so as to make sure that the facilities are available to all on an equitable basis." In the opinion of many leading educators television despite the problems it presents in expenditure of funds and effort offers a unique opportunity for education — an opportunity that dare not be neglected.

PERSONAL NEWS OF SUPERINTENDENTS

► GLENN A. LUNDSTROM, of Hebron, Neb., has been elected superintendent at Blair, to succeed G. M. HOOFER.

► SUPT. M. W. VAN PUTAN, of Eveleth, Minn., has been re-elected for another year.

► SUPT. THOMAS W. REYNOLDS, of Copan, Okla., has been re-elected for another year.

► SUPT. H. H. LEASE, of Madrid, Iowa, has been re-elected for his fourth term.

► SUPT. WILLIAM JANSEN, of the New York City public schools, has announced the nomination of three new assistant superintendents, including the first Negro to be designated for that rank. The new appointees are DR. JOHN B. KING, principal of P.S. 25, Brooklyn; MISS TRUDA T. WEIL, assistant administrative director of elementary education; and DR. JACOB H. SHACK, a junior high school principal assigned to the curriculum division.

► SUPT. G. D. PRICE, of Pierce, Neb., has been re-elected for another year.

► FLOYD H. CARSON has been elected superintendent of schools at Oakmont, Pa., to succeed D. Lewis Shuker.

► SUPT. MELVIN G. DAVIS, of Peoria, Ill., has been re-elected for a new three-year term, after the completion of seven years' service in the school system. DR. JOHN H. HARRIS and DR. ANTHONY MARINACCIO, assistant superintendents, have also been re-elected for three-year terms.

► SUPT. W. A. CATRON, of Carterville, Mo., has announced his resignation, to become effective at the end of the school year in June.

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SAN DIEGO'S ON-GOING SCHOOL BUILDING PROGRAM

The race between increasing school enrollment and adequate classroom space is a century-old contest in San Diego, Calif., with the incoming children gaining an increasing edge on the school district's building program.

The graduation class of 1950 vacated 2171 places in the city's high schools, but in line for these places stood 31,100 ninth graders who moved into the senior high school in September. By October, 1950, 9251 pupils were crowding junior high schools and 31,688 elementary school pupils were lined up behind them.

The scope of the schoolhousing problem can be seen by reviewing the size of the incoming first-grade classes between 1920 and 1950. Not only has the entire school enrollment increased in this 30-year period, but the number of children waiting to be admitted to the first grade each year increased sevenfold between 1920 and 1950. Preschool census figures compiled in 1948 show that 7000 children now in the community will come to school for the first time in September, 1952, and this does not include children coming into the city since 1948.

Depression conditions in the 1930's made a pay-as-you-go plan necessary in order to keep abreast of the building needs and to avoid asking for bond funds. No bond issues were presented during this pay-as-you-go period. Instead the board put aside several thousand dollars each year for a building reserve fund to be used for additional classrooms and the establishment of an accumulative building fund for new schools.

The accumulated building fund and the money raised from a bond campaign in 1946 enabled the school district to make necessary replacements and to meet the needs for additional facilities in the elementary and secondary schools.

A new bond issue became inevitable and the year 1949–50 revealed crowding in the elementary schools and an increasing use of double sessions to solve the housing problem. By the late spring of 1950 it was evident that the summer and fall would be utilized in making plans for a new bond issue if children were to be accommodated in the schools. It was revealed that the new school building needs would require $19,000,000 in bond money to supply needed new schools and classrooms.

The board faced a serious problem. It dare not neglect school building needs, and at the same time it dare not risk losing a bond election because of the critical need. A Citizens' Advisory Committee was appointed representing business, labor, taxpayer, and parent groups. This committee, working with the board, decided to meet the needs in several steps and to limit and postpone building wherever possible. It is a matter of record that the $11,806,000 bond issue was proposed and supported by these groups. In a swift and successful campaign, 81.5 per cent of those who voted in November, 1950, were made keenly aware of the urgency of the situation so that they voted the funds necessary for the buildings.

The outstanding success of the bond issue of November, 1950, is due to the parents and taxpayers of the community. Every major group did its part whether that group represented business, labor, or taxpayers. Parents also did a valiant job in the campaign.

The on-going building program is making progress. There have been plans and preparations to meet the needs, ingenuity to meet them wisely.

ACCURATE
EASY TO INSTALL
QUICK SETTING
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Montgomery PROGRAM TIMERS

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Save administrative time — ring bells, or other signals, automatically.

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Architects, Sellew & Ryder Associates
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FOR THIS CONNECTICUT SCHOOL
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Give old desks

New Eye-Saving Finish

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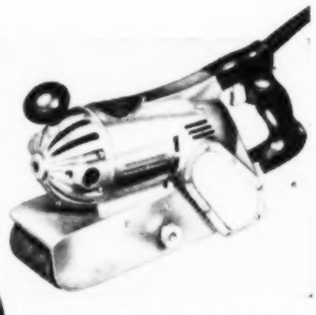
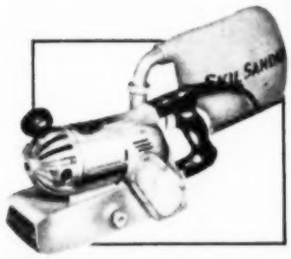
Vision is improved, comfort increased, when desk tops have non-glossy, natural wood finish. Lighting experts recommend the change. Contrast between work and work area is better balanced.

Meet these recommendations at a fraction of the cost of buying new tops. SKIL Belt Sanders refinish present desk tops to scientifically correct color — restore perfect smoothness at the same time. The work can be done without interruption of classroom schedules — without tedious, expensive hand labor. SKIL Belt Sanders do the complete job fast, easily and economically.

SKIL Belt Sander—Model 448 — 3" belt. Weighs 15¾ lbs. Size: 4¼" wide x 15¼" long x 8½" high. Belt speed: 1200 ft. per minute. Durable. Refinishes all materials . . . wood, metal or composition. Many school uses: refinishing desks, furniture, blackboards, etc.





Model 449—Construction similar to Model 448 with efficient dust collector added.

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The story that has to be told!!

ALL SCHOOL OFFICIALS are vitally concerned with the facts in this book

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By DAVID HULBURD

Willard Goslin, an educator of national reputation, was invited early in 1948 by the Board of Education of Pasadena to become Superintendent of its public schools. Two and a half years later the Board that hired him requested his resignation. Why?

This book tells the full story, and shows with frightening clarity how a local crisis in public education can be used by outside forces to further their dangerous end: the undermining of the independence of our democratic school system.

Every teacher, school administrator, and school board member should read David Hulburd's complete story of the Pasadena affair: the personalities, issues, and machinations which lost an able educator his job.

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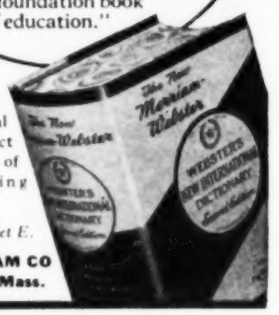

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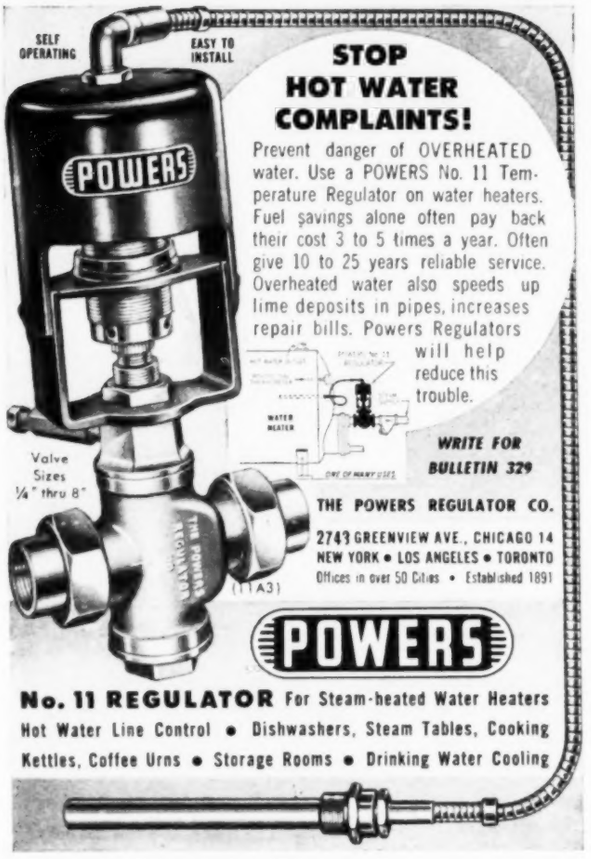

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Noiseless and clean, Wallmaster does not interrupt routine, as drop cloths and the usual mess and fuss are eliminated.

For additional details or *free* demonstration write

WALLMASTER DIV. *Central States Distributors, Inc.*
125 N. Marion St. OAK PARK, ILL.

NEW SUPPLIES AND EQUIPMENT

ENCYCLOPEDIA-BRITANNICA FILMS

Encyclopedia-Britannica Films, Inc., has issued a trio of films, portraying the color, character, and spirit of three ancient and fabled cities of the Mediterranean world. Each film is photographed in color, is complete, and is presented as a supplement to each other in the presentation of the development of western art, religion, and history in the Mediterranean area. The films include one on Rome, the city eternal; Jerusalem, the Holy City; and Pompeii and Vesuvius.

In addition, a film on "Care of the Hair and Nails" employs the use of fantasy as a tool for building right attitudes in children from the point of view of health.

Copies of these films may be obtained by writing to *Encyclopedia-Britannica Films, Inc., 1150 Wilmette Ave., Wilmette, Ill.*

CLASSROOM DECORATION

The Luminall Paint Division of the National Chemical & Mfg. Company has published a second edition of the school color card, "How to Decorate Classrooms in the Harmon Technic."

This brochure for architects and school authorities, offers a five-step methodology for choosing color combinations for classrooms, laboratories, and domestic science rooms.

Following the step-by-step procedure, any architect or educator can determine the recommended color combinations for any given exposure. Special consideration is given not only to rooms with excessive glare, dark adjacent buildings, and limited window area, but also to areas of specialized curricular performance. The final selection is determined by a series of classroom diagrams with the 15 Harmon-tested colors distributed on the wall, ceiling, and trim areas. An additional two pages in color give complete mixing formulas and light reflection areas for all colors. The booklet offers painting specifications for a newly developed rubber base paint, with exceptional qualities of washability.

Copies of the chart may be had at 25 cents, by writing to *Luminall Paints, Chicago 9, Ill.*

ANNOUNCE NEW "ARISTOCRATIC" GLOBE

The Weber Costello Company has announced a new 25-in. globe for use in large schoolrooms, libraries, and offices. The globe which has nearly five times the surface area of a standard 12-in. globe, has several thousand place names, is uncluttered, easy to read, and brilliantly colored. The well-designed base in solid walnut makes the globe especially suited to use in formal rooms.

Complete information and prices are available by writing to the Weber Costello Company at Chicago Heights, Ill.

NEW BOOKLET ON ROOF PROBLEMS

The Tremco Manufacturing Company has announced a booklet entitled, "Solving Roof Problems," which discusses such subjects as types of roofs, how they are built, what factors enter into their deterioration, how roof troubles are diagnosed and treated.

For easy reference, the booklet is divided into 15 sections and a table of contents. Typical headings are "Laying the Built-up Roof," "Diagnosing Roof Conditions," "Repair of Copings and Parapets," "Area Treatment of Roofs."

A copy of the booklet is available by writing to the Tremco Manufacturing Co., 8701 Kinsman Road, Cleveland, Ohio.

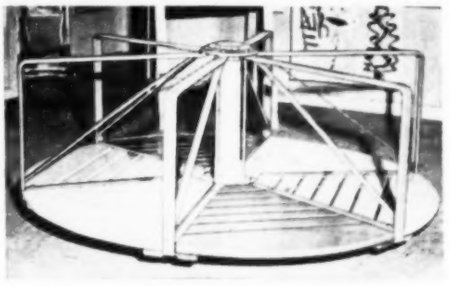
WILL STUDY PLASTIC FINISHES

The Maple Flooring Manufacturers Association has announced that it will shortly begin a research study of plastic types of maple school floor finishes. Up to the present time the Association has advocated the use of penetrating seals and nonslippery finishes of the varnish and wax types. For school use the Association has insisted that these finishes be of the heavy duty type to resist abrasion at 150 Tabor abraser (250 for gymnasium finishes); color not to be darker than 13 by the Gardner Color Standard; Sward Hardness to be at 24; maximum viscosity to be A2 on the Gardner scale C; and resistant to alcohol and naphtha.

Suggestions for the finishing of northern hardwoods, particularly maple, beech, and birch, can be had from the Public Information Department, Maple Flooring Manufacturers' Association, 35 East Wacker Drive, Chicago 1, Ill.

ANNOUNCE NEW INDOOR PLAYROOM EQUIPMENT

The J. E. Burke Company has announced a new line of indoor playroom equipment, comprising four pieces of nursery school and kindergarten playroom equipment.



The new Burke Merry-Go-Round.

The equipment includes a merry-go-round, a hobby-horse, a swing-away, and a turning bar, all designed for boys and girls of nursery or kindergarten age. The equipment is sturdy, colorful, and practical and is designed for both indoor and outdoor use.

Complete information and prices may be obtained by writing to the *J. E. Burke Co., Van Dyne Road, Fond du Lac, Wis.*

ANNOUNCE NEW GLASS-BLOCK FACE FINISH

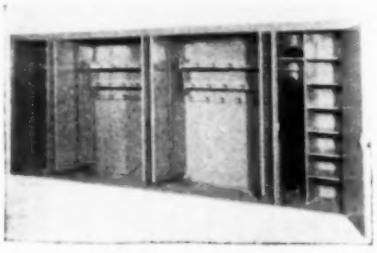
The Pittsburgh Corning Corporation has announced a new "clean-easy" glass-block face finish for its PC"55" line functional glass blocks. This finish is designed to cut the time required to clean mortar smears on the block face; to reduce panel construction costs to provide a crystal-clean block face; and to make it possible for occasional rainfalls to clean the exterior of the block.

The new functional glass blocks have been designed to make the cleaning job a simple one. In addition to the shallow-face corrugations across the face of the block, the "clean-easy" face finish makes the cleaning job easier.

Complete information is available by writing to the *Public Relations Department, Pittsburgh Corning Corporation, 307 Fourth Ave., Pittsburgh 22, Pa.*

AUSTRAL "ECONOMY" SCHOOL WARDROBE

The Austral Sales Corporation has issued a 4-page circular describing and illustrating its new "Economy" school wardrobe, which includes a teacher's supply closet, and blackboard space.



Austral Economy Wardrobe.

The circular offers a drawing of the wardrobe and specifications for its installation.

Complete information and specifications may be obtained by writing to the *Austral Sales Corporation, 101 Park Ave., New York 17, N. Y.*

NEW SPENCER BULLETIN

A new 8-page, illustrated bulletin describing the Spencer commercial, portable vacuum cleaners, has been issued by the Spencer Turbine Co., of Hartford, Conn. It describes and illustrates three machines, powered by 1 h.p., ¾ h.p., and ½ h.p. motors, which offer both wet and dry cleaning and a variety of cleaning tools for floors, carpets, rugs, and walls.

A copy of the bulletin is available by writing to the *Spencer Turbine Company at Hartford, Conn.*

ANNOUNCE QRS FLAMEPROOFING CHEMICAL

The QRS Neon Corporation, Ltd., Pasadena, Calif., has announced a new flameproofing chemical for use in fire conditioning interior and exterior fabrics. The flameproofing solution penetrates the fabric instantly, does not change color or streak, withstands 300° F. without scorching, does not dull high-gloss surfaces, and leaves the fabric with soft hand. The firm has issued a descriptive circular giving directions for preparing and using the solution. Fabrics flameproofed with this solution may be cleaned several times without removing the flameproofing.

Complete information is available by writing to *QRS Neon Corporation, Ltd., 170 Halstead St., Pasadena 8, Calif.*

NEW IBM TYPING GUIDE

The International Business Machines Corporation has announced a revised edition of its IBM Typing Guide, which offers suggestions for increasing typing speed and accuracy.

The booklet begins with a brief description of the features of the IBM Electric Typewriter and then discusses its functions and use, cleaning, operation, and other fundamentals. Instructions are also given for basic practice with word exercises, phrase and paragraph exercises, and figure and special character keys.

Information is available by writing to the *International Business Machines Corporation, 590 Madison Ave., New York 22, N. Y.*

FENESTRA BUILDING PANELS

"Steel and Aluminum Building Panels" is the title of a new 1951 catalog of Detroit Steel Products Company providing technical information for architects and school boards interested in the economical construction of school buildings.

The catalog provides complete specifications and detail drawings of Fenestra wall panels, deck and floor panels, acoustical panels, acoustical roofs, and reinforced Holorib floors.

The catalog is available by writing *Detroit Steel Products Company, 3107 Griffin Street, Detroit 11, Mich.*

DISPLAY MODERN CLASSROOMS AT AASA CONVENTION

To aid the study of enyironmental factors for assisting the learning process, the Westinghouse Electric Corporation, Pittsburgh 20, Pa., displayed three model classrooms at the AASA convention, at Atlantic City, N. J.

By contrast, the old, modernized, and ideal classrooms showed how correct lighting, proper surface colors, light-colored desk tops, green chalkboards, and posture seating can aid learning. The modernized classroom showed what can be done with limited funds. The ideal classroom had desk-top illumination of 30 foot-candles, fluorescent lighting, light walls, and seats forming an arc around the teacher's desk.

ALLOCATIONS MADE

The defense Production Administration has made public the fact that allocations of steel, copper, and aluminum to meet emergency needs in schoolhouse construction will be available during the month of June. The allocations can be received by local boards of education through the office of the United States Commissioner of Education, Washington 25, D. C.

FEDERAL AID APPROVED

A 103-million-dollar fund for school construction and maintenance in overburdened areas has been approved by the House Appropriations Committee in Washington, D. C. Of the total, 28 million dollars is marked for operating grants to schools overcrowded by children of federal workers. Another 75 million dollars was approved for new school construction in defense areas.

A CORRECTION

In his paper on "The Composition of State Boards of Education," April, 1951, p. 15, Dr. Fred Swalls cites the Oregon State Board of Education as having three members. Mrs. Victor O'Neill, of Klamath Falls, calls attention to the fact that the Oregon board has seven members.

SCHOOL BUILDING CONTRACTS

During the month of March, 1951, contracts were let, in 11 states on the Pacific Coast, for 18 school buildings to cost $10,952,260.

During the month of March, 1951, Dodge reported contracts let for 545 school buildings, in 37 states east of the Rocky Mountains. The total contract price was $128,370,000 and the floor area 11,774,000 square feet.

SCHOOL BOND SALES

During the month of March, 1951, school bond sales in the amount of $63,590,700 were recorded. Ohio sales amounted to $13,465,500; Illinois, $6,975,000; New York, $9,195,000. The drop in the price of U. S. bonds has had an effect on the interest rate of school bonds. Twenty outstanding bonds at the end of the month averaged 1.82 per cent.

Advertisers Products and Services

Advertisers in this index are given a code number in addition to the page number on which the advertisement appears. Refer to the advertisement for product or services available. Write direct to advertisers or use the coupon in requesting information from a number of advertisers.

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52	American Seating Company	57
53	American Structural Products Company	13
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543	Nesbitt, Inc., John J.	4th cover
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THE AMERICAN SCHOOL BOARD JOURNAL 1951
400 North Broadway, Milwaukee 1, Wis.

Please send information offered in the advertisements we have encircled

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Yes, educators and other school officials are quick to sense how effectively AUTO-LOK Awning Windows play their role in enabling students to get the most out of educational facilities provided. They applaud the 100% weather control these windows make possible; they heartily endorse the elimination of air-infiltration and the manner in which these modern school windows cut down danger of drafts or perilous "cold spots" which invite respiratory ailments and consequent absence from classes.

Students, too, appreciate the "ventilation at all times" -- regardless of the weather outside -- and welcome the spring breezes, the maximum visibility and the abundance of light that AUTO-LOK brings to any classroom.

The *operating economies* of AUTO-LOK are at once recognized by school boards and staffs. Lower fuel bills. Decreased maintenance costs (for example, the windows are easily cleaned from the inside.) Upkeep expense of any kind is negligible.

The Window with the

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Merely providing weatherstripping isn't the sole answer to elimination of air-infiltration. But in AUTO-LOK, vinyl plastic weatherstripping combines with the ingenious locking action of patented, precision hardware to create a "floating seal." Widely heralded by architects and builders the country over as the greatest single advance in window-making for many years -- this "floating seal" feature makes it possible for your school to use AUTO-LOK in *either* aluminum or wood, with the full assurance that you are securing a closure *ten times as tight* as generally accepted standards -- indeed the

TIGHTEST CLOSING WINDOWS EVER MADE

May we send you, free, informative booklet, *"WHAT IS IMPORTANT IN A WINDOW?"* Please address Dept. AS-5

Pictured above: Randolph-Macon College, Ashland, Virginia. Arch. -- Merrill C. Lee, Richmond, Virginia

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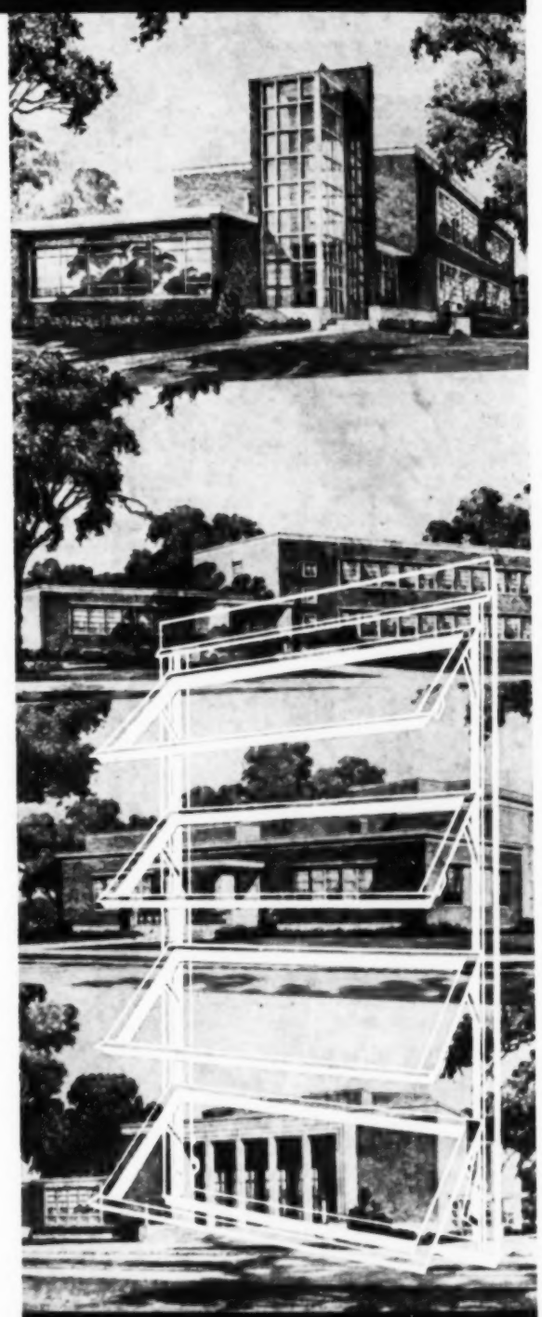
P. O. Box 4541 Miami, Florida



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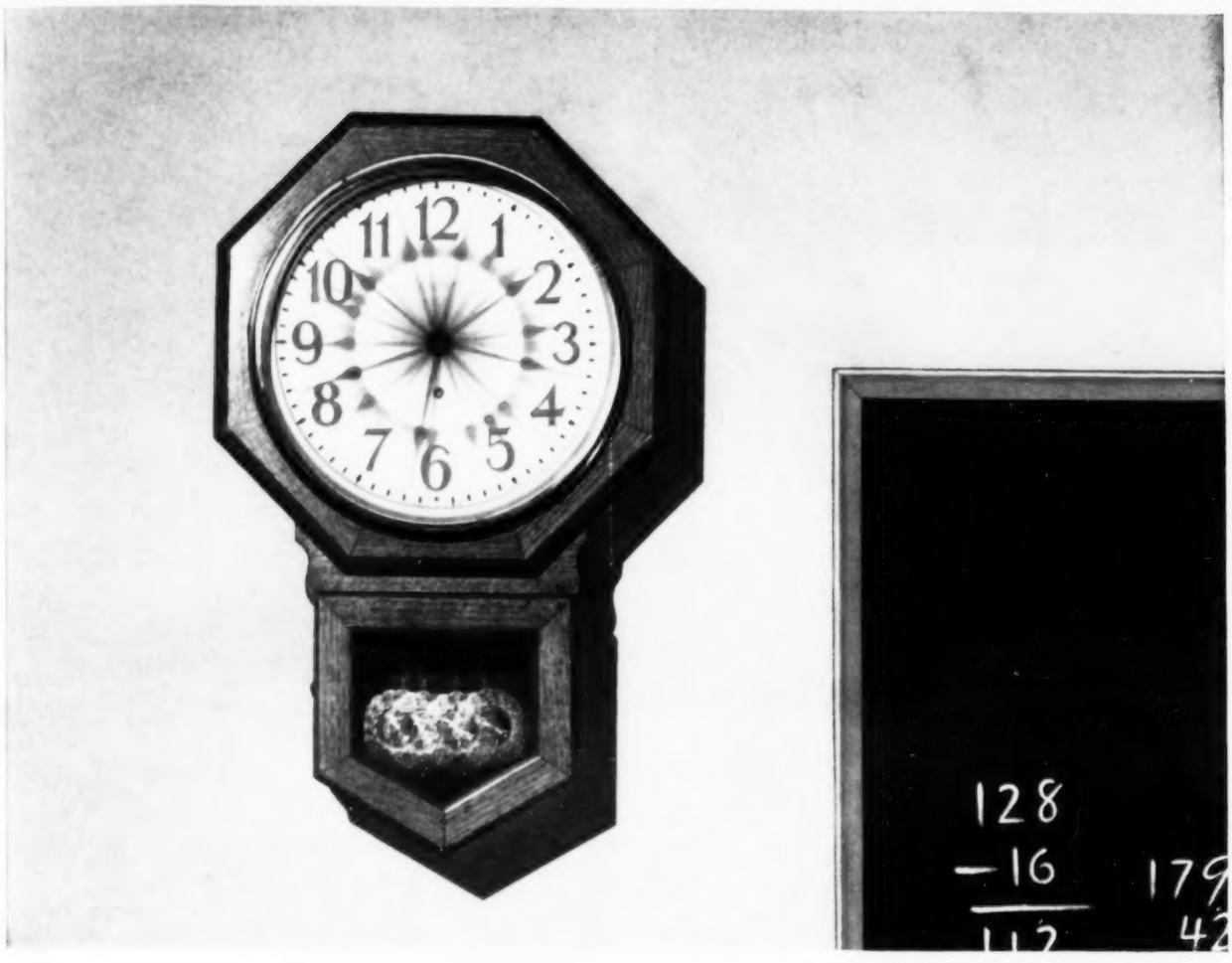
AWNING WINDOWS
ALUMINUM or WOOD



Will Your New School Make Clocks "*Run Faster*"?

Of course, no school building can *literally* speed up the march of time.

But put your students in the right kind of surroundings—and the clocks will *seem* to run faster. Because your students will be more alert, more interested, more responsive—and that means they'll make faster progress.

Experience shows, for example, that most children's interest level stays higher longer when they're moved from stuffy, overheated surroundings to classrooms in which level temperatures, adequate fresh air and proper humidity are constantly provided.

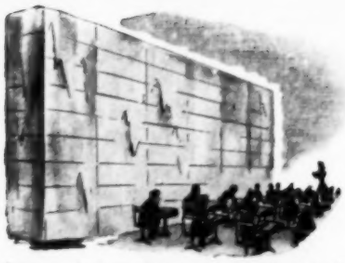
Knowing this, more and more school officials are insisting on modern Honeywell automatic controls for their new schools. Honeywell equipment has been *proved* more accurate, more dependable. Honeywell controls are simpler, too—consistently cost less to maintain. And Honeywell serves you with the largest, most widespread staff of control experts in the industry.

You owe it to your students *and* your budget to get all the facts and figures about Honeywell controls for *your* new school. It's easy to do. Simply call your local Honeywell office. Or write Honeywell, Dept. AJ-5-84, Minneapolis 8, Minnesota. Why not do it *today!*

MINNEAPOLIS
Honeywell
First in Controls

Answers the "WALL-OF-ICE" Problem

NESBITT Syncretizer with WIND·O·LINE



Large windows become a "wall-of-ice" on very cold days—unless shielded by the Nesbitt Thermal Blanket.

ONLY NESBITT GIVES YOU THIS "THERMAL BLANKET"

The trend toward larger areas of fenestration in the modern schoolroom makes greater demands of the heating and ventilating unit. The "thermal blanket" provided by the Nesbitt Syncretizer adequately shields occupants against the window "wall-of-ice" in normal situations; but under conditions of extremely long glass exposure and very low outdoor temperatures, an "extra blanket" is called for. Nesbitt WIND·O·LINE meets such needs.

When specified as an auxiliary of the free-standing Nesbitt Syncretizer, WIND·O·LINE consists of finned-tube radiation in an attractive grilled casing. It is located just below the windows and extends from both ends of the Syncretizer unit ventilator for the full length of the sill, as pictured above. It is controlled in cycle with the Syncretizer to give heat—when required—where heat is needed.

WIND·O·LINE is also available with The Nesbitt Package, recessed in a channel at the rear of the storage units . . . but it is not necessary to install storage cabinets to get this extra protection. WIND·O·LINE is yet another Nesbitt innovation which permits more of America's schools to enjoy the *new standard of classroom comfort.*

The Nesbitt Syncretizer UNIT VENTILATOR

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